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# CATALOGUE OF THE SPECIMENS

ILLUSTRATING THE

# OSTEOLOGY AND DENTITION

OF

# VERTEBRATED ANIMALS,

RECENT AND EXTINCT,

CONTAINED IN

# THE MUSEUM

OF

## THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

BY

WILLIAM HENRY FLOWER,

CONSERVATOR OF THE MUSEUM.

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## PART I.

MAN: *Homo sapiens*, Linn.

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# PREFACE.

THE first printed list of the Osteological Specimens contained in the Museum was published in 1831. It soon, however, became evident that a more complete catalogue was required; and at a meeting of the Museum Committee, held on the 6th of January, 1842, Professor Owen, then Conservator of the Museum, presented a report "On the advantages of combining the Fossil and Recent Osteological Specimens in one Catalogue and system of arrangement;" and at a meeting on the 8th of February of the same year it was resolved, in pursuance of the authority given to the Committee by the Council, that the fossil and recent osteology be incorporated in one series, and the Catalogue be prepared in accordance with this view.

For some motive not explained upon the Minutes, the method of arrangement approved by the Committee and Council, and which had been recommended with much urgency and excellent reasoning by the Conservator, was not carried out. The specimens continued to be divided primarily, not according to their zoological or anatomical relations, but by a most incon-

venient and artificial system, according as the animals from which they were derived lived before or after a particular period of the world's history. Hence each series was incomplete, and required reference to the other for its perfect illustration and comprehension.

In 1845 the 'Catalogue of Fossil Remains of Mammalia and Aves' appeared, in 1853 the 'Catalogue of the Osteological Series' (comprising only the specimens of existing species), and in 1854 the 'Catalogue of Fossil Remains of Reptilia and Pisces.'

These very valuable and detailed Catalogues, for which the Museum was indebted to the assiduous labours of Professor Owen, are, owing to the numerous additions made to the collection, as well as to the advances in zoological classification since their publication, gradually ceasing to fulfil the present requirements of the Museum; and the necessity for new ones is becoming obvious to every one engaged in studying the collection. The desirability of returning to the resolution of the Committee of 1842 is also continually becoming more evident.

It is always difficult, in the case of a growing collection, to fix the best time to print a Catalogue, as it is necessary to choose between the danger, on the one hand, of incurring much labour and expense in the production of a publication which may before long require to be superseded, and, on the other, of allowing the interests of the collection and of the workers in it to suffer by the condition of confusion into which it necessarily falls when a vast quantity of new material has

been incorporated into a framework not sufficiently comprehensive or elastic to adapt itself to its reception.

Under the circumstances, the best principle appeared to be not to attempt, with the present greatly enlarged collection, to give a minute description of every individual specimen, as had previously been done but rather to aim at making a complete list of the contents of this department of the Museum, arranged upon a system which should combine modern scientific views of classification with convenience of reference and capability of extension, and to pay great attention to accuracy of nomenclature, and especially to the preservation of every record relating to the history and authenticity of each specimen, laying stress on all particulars which are not to be seen in the specimen itself, rather than on those which can at any time readily be found there. To do this a very great amount of time has been consumed in searching through old documents, letters, and publications, though often with little visible result; and, notwithstanding all the pains taken, some specimens will be found in the Catalogue, received into the collection in former times, the history of which is doubtful or unknown.

That the value of the former full descriptions may be retained, references will be given in the new Catalogue to its predecessors in all instances of specimens mentioned in them.

As the additions to the collection have been especially numerous among the specimens illustrating the anatomy of Man and the higher forms of Vertebrates, it has been considered advisable to reverse the order of the last Catalogue, and commence at the higher instead of the lower end of

the series. The first portion will relate to the section of the collection devoted to Human Osteology, including the series of skeletons and crania of the various races of Man; and, for the convenience of those who make this branch of the subject a speciality, it will be issued separately.

Royal College of Surgeons,
September 12, 1879.

# INTRODUCTION TO PART I.

It has been thought advisable to issue the portion of the Catalogue containing the illustrations of Human Osteology in a separate volume, without waiting until the remainder of the work should be completed, as, while the study of Anthropology is continually attracting more and more attention, the former Catalogue has ceased to give any idea of what the Museum contains in this department, or wherein it is deficient. The extent to which this portion of the collection has increased in the last few years will be appreciated by the fact that of the 1312 specimens mentioned in the present Catalogue, only 345 are to be found in the edition of 1853. Of these, 113 are part of the original Hunterian Collection.

The first section is devoted to the General Osteology of Man, independently of peculiarities of race, and commences with the development of the skeleton (as far as it can be illustrated by dried specimens), and proceeds to the osteology of adult man in the normal condition, or showing individual variations. To draw a satisfactory line between such variations as may be classed within the range of normal anatomy and those that exceed this range and may properly be called teratological is extremely difficult, as the distinction is a purely arbitrary one; but, in the case of specimens in a museum, it will usually be

determined by convenience of arrangement. Hence some specimens are included in the present series which might, in a strictly scientific classification, more properly find a place in the department of Teratology.

On similar grounds the subjects of the second principal division of the Catalogue, illustrating Dentition, are included in the present series and arranged with the bones. Although neither morphologically nor physiologically forming any part of the osseous system, the teeth are so intimately associated with the skeleton (part of which is adapted to their support and moulded to their form) and are preserved by the same processes and under the same conditions, that it is impossible in the arrangement of a museum to separate one from the other.

The third and largest section is devoted to the Special Osteology of Man, or illustrations of those variations which have become so fixed and hereditary as to give distinctive characters to the different groups or races of mankind.

The arrangement of these specimens is one of considerable difficulty, partly owing to the present state of uncertainty as to the true classification of the varieties of the human species, and partly owing to the numerous cases that have to be dealt with of mixed or doubtful descent. It has therefore been thought that these difficulties will be best overcome, and a place most readily found for every specimen, without committal to any theoretical view of its origin or affinities, by adopting (as in Dr. Barnard Davis's valuable 'Thesaurus Craniorum') a geographical arrangement, and placing all the specimens according to the countries of which they are presumably native. In a few obvious cases of transplantation from one country to another inhabited by a distinct race, this system has been departed from. For instance, Negroes known to be of African descent but born in America are not included among the natives of the latter continent, but are assigned to the original home of their race.

The boundaries of the regions adopted do not always exactly coincide with those of political geography; and a considerable concession to the claims of a classification based on physical characters has been made in the general arrangement of the series. It will be observed that the various regions of the world have been so grouped as to bring together those that are mainly inhabited:—(1) by the white or Caucasian races of Blumenbach, including the whole of Europe except the eastern frontiers of Russia, Africa north of the Sahara, and Asia south and west of the Himalayas; (2) by the yellow and red Mongolian and Mongoloid races, including the remainder of Asia, the Indo-Malay Archipelago, Eastern Polynesia, and the whole of America; (3) by the Australians, a race agreeing with the following section in every thing but the character of the hair; (4) by the frizzly-haired or black races—beginning with the Oceanic Negroes or Melanesians in the widest sense of the term (including the Tasmanians, Melanesians proper, Papuans, and Negritos of the Andaman Islands), and ending with the natives of Central and Southern Africa, the Negroes, Kaffirs, and Hottentots.

Although the geographical arrangement has thus been made to run in the same lines with some of the best-ascertained facts in the zoological classification of Man, no attempt has been made to draw the boundaries too minutely. Any serial arrangement at the best can only be a compromise, especially in a collection so imperfectly representing the numerous and indefinite gradations of variation at present existing on the earth. Not only on the frontier-line between the territories in which two different races predominate, but far into the interior of each, mixed or even pure specimens of other races are to be found. It must not, therefore, be considered that any individual skull classed among the inhabitants of a country mainly occupied by a particular race belongs as a matter of certainty to that race, especially when the history and external appearance of the individual before death may be utterly unknown. It is, however, obvious that the larger each series becomes, the less such accidental

intrusions will vitiate the results obtained by the system of averages; and hence the necessity of bringing together, in any collection intended to advance the knowledge of physical anthropology, far larger series than are at present available.

As regards the descriptions of the individual specimens, the name of the donor and the date at which it was acquired are recorded in every case in which they could be ascertained. It is only with some of the older specimens that there has been any uncertainty on these points. Such details are often of importance in tracing the history or establishing the authenticity of specimens which might, perhaps, otherwise be subject of doubt. References are always given to any published descriptions or figures; and the number in the former Catalogue * (O. C., *i. e.* Old Catalogue or Owen's Catalogue) is given in the case of all specimens contained therein, that the full description in it may be referred to, for which purpose copies of that Catalogue will be retained in the Museum.

It has not been thought advisable to give such detailed descriptions in the present Catalogue, as to do so with the largely increased number of specimens would have greatly prolonged the preparation of the work and delayed the much-needed succeeding volumes; and the introduction of exact measurements supersedes the necessity of the use of such comparatively vague descriptive terms as "broad," "high," "round," &c. Certain points have, however, always been noted; to the following explanation of which the attention of all who may consult the Catalogue is particularly requested.

When the lower jaw is present, the specimen is described as a "skull;" when absent, as a "cranium." When the bones of the face are wanting, it is called a "calvaria."

When the sex is known from certain evidence, as from the

* 'Descriptive Catalogue of the Osteological Series contained in the Museum of the Royal College of Surgeons of England.' 2 vols. 4to. 1853.

history of the individual or the presence of the entire skeleton, it is stated in full—"male" or "female." If only inferred from the characters of the skull, it is indicated by the signs ♂ or ♀. When no such sign is appended, the characters are not sufficiently distinctive to attribute it to either sex. A sign with a ? signifies that the characters of one sex predominate, though not quite decisively. These are points upon which other observers may of course occasionally form different judgments from those given in the Catalogue.

With regard to the important question of age, all skulls in which the basilar suture is closed are regarded as adult; and where this has not taken place the circumstance is invariably noted, such skulls being regarded as "young," and excluded from the average measurements given in the Appendix. Up to this period the state of dentition is always mentioned, as indicating the relative development, though without attempting to give the age in years. Although in our own race we know tolerably well what conditions of dentition correspond to particular ages, we have little proof that it is the same with other races. Of the adult skulls, also, no attempt has been made to assign the age; but mention is made of all cases in which senile changes have set in.

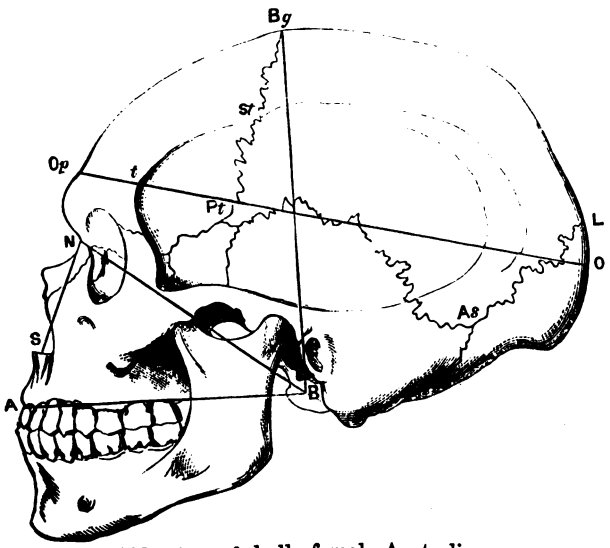
Certain points in the condition of the sutures, to which much attention has been directed of late, have always been noted. These are:—*metopism*, or persistence of the mid-frontal suture; the presence of interparietal or epactal bones, or unusual Wormian bones; and the contact of the squamosal with the frontal bone at the pterion. When no note is to be found on any of these points, it may be presumed that the exceptional condition does not exist. The small supplementary ossifications at the upper end of the alisphenoid, which may be called *epipterics*, being of such great frequency, have not been noted.

All marked anomalies of dentition are recorded.

As many of the very convenient, and, indeed, indispensable,

terms recently introduced (chiefly by Broca) into craniology are not yet familiar to all English anatomists, it may be convenient to give here a short explanation of such of them as are used in the present Catalogue *.

Fig. 1.




Side view of skull of male Australian.

*A.* Alveolar point. *S.* Subnasal point. *N.* Nasion. *Op.* Ophryon, or centre of supraorbital line (*Op t*). *Bg.* Bregma. *L.* Lambda. *O.* Occipital point, or most distant part of occiput from *Op*. *B.* Basion. *St.* Stephanion. *Pt.* Pterion. *As.* Asterion. *Op O.* Length of cranium. *B Bg.* Height of cranium. *B N.* Basinasal length. *B A.* Basialveolar length. *N S.* Nasal height.

The most important points for mensuration and descriptive purposes situated in the middle line of the cranium, taken in order, are :—

* For fuller explanations of these and other similar terms, see 'Instructions crâniologiques et crâniométriques de la Société d'Anthropologie de Paris' (1875); also Topinard's 'Anthropologie' (1876); and for still more detailed reasons for the introduction of the new terms, "Notions complémentaires sur l'Ostéologie du Crâne, détermination et dénominations nouvelles de certains points de repère," by P. Broca (Bulletin de la Soc. d'Anthrop. de Paris, Séance du 20 mai, 1875).

1. *Alveolar point* (*A*). The centre of the anterior margin of the upper alveolar arch.
2. *Subnasal point* or *Spinal point* (*S*). The middle of the inferior border of the anterior nasal aperture, at the base of the nasal spine.
3. *Nasion*, or *Nasal point* (*N*). The middle of the naso-frontal suture at the root of the nose.
4. *Ophryon* (*Op*). A point situated immediately above the glabella, or, more exactly, the centre of the supraorbital line, which, drawn across the narrowest part of the forehead, separates the face from the cranium.
5. *Bregma* (*Bg*). The point of junction of the coronal and sagittal sutures.
6. *Lambda* (*L*). The point of junction of the sagittal and lambdoidal sutures.
7. *Opisthion*. The middle of the posterior margin of the foramen magnum.
8. *Basion* (*B*). The middle of the anterior margin of the foramen magnum.

On the lateral surface of the cranium are :—

9. *Pterion* (*Pt*). The region, near the anterior part of the temporal fossa, where the great wing of the sphenoid, the squamosal, the parietal, and the frontal bones come near to each other in a varying manner in different individuals.
10. *Stephanion* (*St*). The point where the temporal ridge crosses the coronal suture.
11. *Asterion* (*As*). The point, behind the mastoid process, where the parietal, occipital, and temporal bones meet.

Sometimes a horizontal suture (traces of which are generally visible in the skulls of infants), extending across the supra-occipital, connects the asterion of each side. The upper portion thus intercepted is called an *interparietal* bone. When a suture on a higher level cuts off a smaller portion of the supraoccipital, this is called an *epactal* bone. The former is a permanent retention of an embryonic condition; the latter a mere anomaly.

The measurements are all stated in millimetres, as being not only the most convenient divisions of space for the purpose, but those used by the greater number of anatomists. In the case of the height of articulated skeletons, English feet and inches are added, to facilitate comparisons by those who are more accustomed to such measures.

The length of all the principal bones of the limbs of every skeleton has been given. In important specimens, or when the lengths have differed sensibly on the two sides, both right and left have been measured. When the length of only one side is given, it is the right, and it may be presumed that the other did not differ materially from it. The length given is always the greatest length in the direction of the long axis of the bone, measured between two plane surfaces placed one at each end of the bone and perpendicular to the axis. In the tibia, however, the spine is omitted, the length being taken from the middle of the upper edge of the internal tuberosity to the apex of the malleolus.

The measurements given of the skulls are few compared with the number that would be required in a catalogue professedly descriptive; but they are those which seemed, after much consideration, to be the most important in indicating the general characters of the head and face as revealed in their osseous framework. Great care has been taken to ensure their accuracy; in most cases they have been repeated more than once, at considerable intervals of time. Mathematical precision, however, is impossible in osteological measurements, as, independently of other difficulties, bone varies in bulk according to surrounding conditions to an extent far greater than is generally supposed. I have found by repeated experiments, in confirmation of those of Broca *, that a cranium will vary, not only in capacity, but as much as 5 millimetres in its circumference, and a femur 2 or 3 millimetres in its length,

* "Etudes sur les Propriétés Hygrométriques des Crânes considérées dans leurs rapports avec la Crâniométrie" (Revue d'Anthropologie, Janvier 1874).

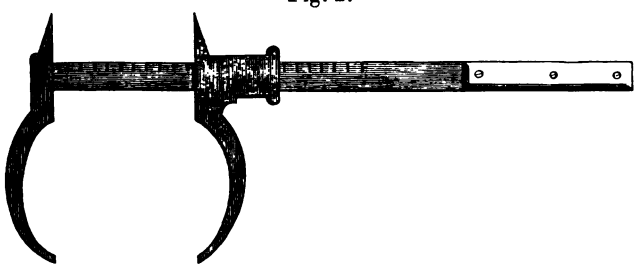
according as it is dry or damp, shrinking when dry and expanding when wet, the state of the atmosphere being quite sufficient to affect it. This circumstance will doubtless account for many discrepancies in measurements, and show that, although accuracy up to a certain point is absolutely essential, excessively minute measurements, and especially calculations of indices to numerous decimals based upon such measurements, involve only waste of labour and printing.

It may, however, be worth while mentioning, especially for beginners, that in recording measurements of whatever kind it is very important to put down, not the last, but the nearest unit of measurement to the length of the object measured; if, for instance, it measures ten millimetres and any fraction less than a half, to set it down as 10, but if more than a half, to set it down as 11. Otherwise, in adding up a large number of figures there will be sensible loss on the whole; whereas if this is attended to, what is gained in some cases counterbalances what is lost in others, and the general sum is accurate—the more so, of course, the larger the number of figures added. The same principal must be observed in calculating indices. Whatever be the last decimal figure used, it should always have reference to the next that would follow. If this is below 5 no notice will be taken of it, but if above 5 the last figure recorded must be augmented by 1; thus ·6789 must be abbreviated into ·7, ·68, or ·679, not into ·6, ·67, or ·678. This rule has been invariably followed in all the calculations in the present work.

The measurements of crania, except the circumference and capacity, have all been taken with one instrument, a sliding caliper, which combines the purposes of the French *compas d'épaisseur* and *compas-glissière*. It has been found so convenient for all cranial as well as other osteological measurements that a sketch of it is subjoined (fig. 2). The larger dimensions of the cranium are taken with the curved arms, the smaller ones, as those of the nose and orbit, with the shorter pointed arms. The

instrument can be made portable, the fixed arm, or that most distant from the handle, being removable, and the sliding arm following it; both can thus be placed in a case by the side of

Fig. 2.



Craniometer: one fifth the actual size.

the stem; but for museum or laboratory work the perfect stability of a fixed instrument is preferable.

To avoid the labour of making innumerable calculations with risk of error in every case, tables have been constructed for finding the principal indices, which are more convenient for reference and more exact than any of the mechanical instruments devised for the purpose. As such tables will be found useful by all who are working at craniometry in this museum or elsewhere, they have been printed at the end of the catalogue. The principal one, that for the length and breadth indices, is almost identical with that published by Welcker *, which was not known to me until after the present one was computed; but as that table is not at present very accessible, and also contains several slight errors, it has been thought that the reproduction of a similar one in this work would still be acceptable.

In these indices three figures have been given, the last, however, as mentioned above, always modified in reference to the one which succeeds it. These, as they stand, may be considered as thousandths, but by placing a dot after the second or first figure they may be converted into hundredths or tenths if desired. The frequent practice in France of giving four figures for indices,

* Archiv für Anthropologie, Band iii., 1868.

viz. hundredths followed by two decimals, appears to me to be very unnecessary, and to give an entirely fictitious appearance of accuracy, considering that the data from which the indices are calculated are measurements which, taken by different individuals or by the same individual at different times, rarely if ever coincide with absolute accuracy. Indeed, for most purposes, two figures are quite as likely to represent truthfully the required proportion as three.

The measurements and indices selected for record in this Catalogue are as follows, being distinguished by the initial letter :—

C. Horizontal circumference. This is taken with the tape in the usual way, passing in front round the supraorbital line (above the glabella) and behind across the most prominent part of the occiput (fig. 1, *Op O*). It gives a general idea of the size of the exterior of the cranium.

L. Length. Unfortunately craniometrists are not yet in accord as to the best method of taking this important measurement, which affects considerably the two following indices. It is here always taken by placing one arm of the craniometer on the ophryon, and the other on the most distant part of the occiput (fig. 1, *Op O*). The glabella, which is properly a part of the face, and which may vary much in development without any alteration in the essential form of the cranium, is thus excluded.

B. Breadth, is the greatest parietal breadth.

Bi. Index of breadth. Latitudinal index or cephalic index. $\frac{B. \times 100}{L.}$.

H. Height. Of the various methods of estimating the height, the one here used is that generally adopted by the French anthropologists—that is, the distance between the basion and the bregma (fig. 1, *B Bg*).

Hi. Index of height, or altitudinal index. $\frac{H. \times 100}{L.}$.

BN. Basinasal length. Basion to nasion.

BA. Basialveolar length. Basion to alveolar point, or the most distant part of the anterior margin of the alveolar arch.

Ai. Alveolar index. $\frac{BA. \times 100}{BN.}$. This affords the readiest method of estimating the amount of forward projection of the jaw. It is not always perfectly accurate, as it is affected by any abnormal position of the basion, independently of the real relation of the face to the cranium; but these cases are comparatively rare, and scarcely affect large averages. Unfortunately, in crania in which the incisor teeth have been lost during life and the alveolar margin absorbed, the basialveolar length, and consequently the alveolar index, cannot be obtained. As will be seen in the sequel, this index forms one of the most important characteristics of race.

Nh. Nasal height. A vertical line between the nasion and the lower border of the nasal aperture.

Nw. The greatest width of the nasal aperture.

Ni. Nasal index. $\frac{Nw. \times 100}{Nh.}$.

Ow. Orbital width. The inner point of measurement is the spot where the ridge which forms the posterior boundary of the lacrymal groove meets the fronto-lacrymal suture. This is rather behind the *dacryon* of Broca (point of junction of the frontal, ascending process of maxilla, and lacrymal), and completely excludes the lacrymal groove from the measurement. The outer point is the most distant part from this on the front edge of the outer border of the orbit.

Oh. Orbital height. The distance between the upper and lower margins of the orbit at the middle.

The right orbit, unless injured or of abnormal form, is that usually measured.

Oi. Orbital index. $\frac{\text{Oh.} \times 100}{\text{Ow.}}$.

Ca. Capacity in cubic centimetres. This is one of the most important and difficult measurements. It is hoped that the figures here given may be relied upon; at all events no pains have been spared to ensure accuracy, as far as it can be attained. Many thousands of experiments have been made to ascertain the best process; and most of the crania have been gauged several times over. The material used has been mustard-seed, with which the cranium is filled to its maximum. The measurement of the seed is then taken with the choremometer designed and constructed by Mr. Busk *. The accuracy of the method has frequently been verified upon crania specially prepared, so that their capacity could be ascertained with absolute exactness by filling them with mercury or water. The details of the method of measurement, and the reasons for the preference of this method to that which has been elaborated with so much care and ingenuity by M. Broca, will be given elsewhere.

At the conclusion of the Catalogue the average measurements of each race are tabulated, so that they can be readily compared, and some observations are made upon the results. These will, I trust, serve to show that, although the measurements of individuals give great variations in every race, there are some tangible characters by which the broader divisions of the human species can be distinguished—at all events, that certain characteristics prevail in one, and certain others in a different race. If the measurements given had been more numerous, probably many other interesting results would have been elucidated; but the purpose of the Catalogue has been only to illustrate the general outlines of the subject. The specimens which would be required to demonstrate the subdivisions of the great groups, the characteristics of which can only be brought out by more minute

* See 'Journal of the Anthropological Institute,' vol. iii. p. 200, pl. xii.

and complicated systems of measurement, are not sufficiently numerous to give fair averages, and in many cases are entirely wanting. It is hoped that the publication of this Catalogue, by showing the deficiencies of the collection, will lead to many of them being supplied by those who have the opportunity of so doing.

Mr. Busk, Chairman of the Museum Committee, whose long-continued and successful labours in the department of physical anthropology are so well known, has been good enough to read the proofs of this Catalogue while passing through the press. Thanks are also due to Dr. Garson, Assistant in the Museum, for similar aid, and to Mr. John M'Ara, Museum Attendant, for calculating the various tables of indices and averages.

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## CORRIGENDA.

Page 10, No. 91, *for* Hi. 460 *read* Hi. 640.
„ 43, „ 303, *for* Ai. 97 *read* Ai. 970.
„ 100, „ 615, *for* Ai. 94 *read* Ai. 940.
„ 104, „ 631, *for* Ai. 100 *read* Ai. 1000.
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„ 119, „ 715, *for* Oi. 320 *read* Oi. 820.
„ 120, „ 720, *for* cranium *read* skull.

# OSTEOLOGICAL CATALOGUE.

## PART I.

### I. GENERAL OSTEOLOGY OF MAN.

THE specimens in this series are mostly from English or at least European subjects, or of unknown origin.

#### A. DEVELOPMENT OF THE HUMAN SKELETON.

The structure and growth of bone generally, as far as it can be shown in specimens preserved in spirit, is illustrated in the Physiological Series, Preparations 112 to 220, described in the first volume of the Catalogue of that series.

The following specimens only show the progress of ossification.

##### *α. Up to the time of birth* *.

1. The skeleton of a fœtus, one inch in height (about the end of the second month of intra-uterine life). O. C. 5814.

   This specimen was originally part of the Sloane Museum. *British Museum. Purchased,* 1809.

2. The skeleton of a fœtus, one inch and three quarters in height (between the second and third month). O. C. 5815.

   *Hunterian.*

* The ages assigned to these embryonic skeletons are merely approximate, and inferred from the state of development, no precise dates having been obtained with the specimens. The heights are given from the vertex to the heel, but, owing to the shrinking of the dried cartilages, are less than would have been the case in the original condition.

3. The skeleton of a fœtus, two inches and three quarters in height (three months). O. C. 5816. *Hunterian.*

4. The skeleton of a fœtus, slightly more advanced.
*Presented by G. W. Mackmurdo, Esq.*, 1857 *.

5. The skeleton of a fœtus, four inches in height (between three and four months).
*Presented by G. W. Mackmurdo, Esq.*, 1857.

6. The skeleton of a fœtus, four and three quarters inches in height, wanting the left arm (four months). O. C. 5818.
From the collection of the late John Heaviside, Esq., F.R.S.
*Purchased*, 1829.

7. The skeleton of a fœtus, slightly more advanced. O. C. 5819.
*Heaviside Collection. Purchased*, 1829.

8. The skeleton of a fœtus, five and a half inches in height (four months).
*Presented by G. W. Mackmurdo, Esq.*, 1857.

9. The skeleton of a fœtus, six inches in height (between four and five months). O. C. 5820.
*Heaviside Collection. Purchased*, 1829.

10. The skeleton of a fœtus, seven inches in height (five months).
*Presented by Erasmus Wilson, Esq.*, 1869.

11. The skeleton of a fœtus of the same size. O. C. 5821.
*Hunterian.*

12. The skeleton of a fœtus, seven and a half inches in height (five months).
*Presented by G. W. Mackmurdo, Esq.*, 1857.

13. The skeleton of a fœtus, eight inches in height (between five and six months).
*Presented by Erasmus Wilson, Esq.*, 1869.

14. The skeleton of a fœtus, eight and a quarter inches in height (between five and six months).
*Presented by G. W. Mackmurdo, Esq.*, 1857.

15. The skeleton of a fœtus, of the same size.
*Presented by Erasmus Wilson, Esq.*, 1869.

* The series of fœtal skeletons presented by Mr. Mackmurdo were purchased by that gentleman in Paris.

16. The skeleton of a fœtus, of the same size. *Purchased*, 1861.

17. The skeleton of a fœtus, nine and a half inches in height (six months). O. C. 5822.
*Heaviside Collection. Purchased*, 1829.

18. The skeleton of a fœtus, ten inches in height, wanting the right arm.
*Presented by Erasmus Wilson, Esq.*, 1869.

19. The skeleton of a fœtus, ten and a half inches in height (six months). O. C. 5823. *Hunterian.*

20. The skeleton of a fœtus, of the same height.
*Purchased*, 1861.

21. The skeleton of a fœtus, of the same height.
*Presented by G. W. Mackmurdo, Esq.*, 1857.

22. The skeleton of a fœtus, eleven inches in height (between six and seven months). O. C. 5824. *Hunterian.*

23. The skeleton of a fœtus, twelve inches in height.
*Purchased*, 1861.

24. The skeleton of a fœtus, of the same height.
*Presented by G. W. Mackmurdo, Esq.*, 1857.

25. The skeleton of a fœtus, thirteen and a half inches in height (seven months). *Purchased*, 1861.

26. The skeleton of a fœtus, fifteen inches in height.
*Presented by G. W. Mackmurdo, Esq.*, 1857.

27. The skeleton of a fœtus, of the same height.
*Purchased*, 1861.

28. The skeleton of a fœtus, fifteen and a half inches in height (eight months). *Purchased*, 1861.

29. A skeleton, sixteen and a half inches in height, being that of a fœtus of nine months or a child at birth.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

30. A skeleton of the same age.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

31. A skeleton of the same age. *Purchased*, 1861.

32. A skeleton of the same age. O. C. 5825.
*Presented by Sir William Blizard*, 1811.

33. A skeleton of the same age, eighteen inches in height. O. C. 5826. *Hunterian.*

34. The separated bones of the skeleton of a child at birth.
*Purchased.*

35. The separated bones of the skeleton of an unusually well-developed still-born male child, weighing ten and a quarter pounds. *Prepared in* 1869.

36. The cranium of a child at or before birth. O. C. 5827.
*Hunterian.*

37. The skull of a child at birth. O. C. 5828.
*British Museum. Purchased*, 1809.

38. The cranium of a child at birth. *Purchased*, 1866.

39. The skull of a child at birth. *Purchased*, 1866.

40. The skull of a child at birth.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

41. The skull of a child at birth.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

42. The skull of a child at birth.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

43. The skull of a female child at birth, longitudinally and vertically bisected. *Prepared in* 1869.

44. The skull of a child at birth.

45. A preparation of a fœtal skull. O. C. 5882.
*Presented by Professor Owen.*

46. The bones of a fœtal skull, separated and artificially connected with each other. O. C. 5880. *Purchased.*

47. The separated bones of a fœtal skull. O. C. 5881.
*Heaviside Collection. Purchased*, 1829.

48. Three portions of the vertebral column of a fœtus. Described in the Old Catalogue, Nos. 5877, 5878, and 5879.
*Presented by Professor Owen.*

*β. Progress of ossification after birth.*

49. The separated bones of the skeleton of a female child aged fifteen months. The twelfth pair of ribs are rudimentary.
*Prepared in* 1864.

50. The articulated skeleton of a boy about two years of age. O. C. 5830. *British Museum. Purchased,* 1809.

51. The separated bones of the skeleton of a male child, aged two and a half years (slightly rachitic).
*Prepared in* 1866.

52. The skeleton of a child about eight years of age.

53. The separated bones of a male child nine years of age.
*Prepared in* 1864.

54. The articulated skeleton of a boy about twelve years of age. O. C. 5831. *British Museum. Purchased,* 1809.

55. The skull of an infant about eight months of age.
*Purchased,* 1868.

56. The skull of a child about three years of age. All the milk-teeth are in place; the germs of the second dentition are displayed. The basioccipital bone is wanting.
*Presented by Joseph Hodgson, Esq.,* 1869.

57. The skull of a somewhat older child. A horizontal section has been made through the calvarium.

58. The skull of a child five or six years of age, vertically and longitudinally bisected.

59. The bones of the skull, separated and artificially connected, of a child about seven years of age. The milk-dentition and the first permanent molars are in place. O. C. 5883.
*Purchased,* 1840.

60. The frontal, parietal, and occipital bones, or "neural arches of the three posterior cranial vertebræ," of a child. O. C. 5884. *Presented by Professor Owen.*

61. The skull of a young European. O. C. 5742.
The basilar suture is not closed. The second molars are fully

developed, but the posterior molars are not yet in place. The left lower milk-molar is retained.

*Hunterian.*

62. The femur of a young person, longitudinally bisected, to show the internal structure and the detached epiphyses of the head, great trochanter, and lower articular extremity. The epiphysis forming the lesser trochanter is partially united to the shaft. *Purchased.*

63. A similar preparation of a tibia, showing the epiphyses at both extremities. Probably from the same person as the last. *Purchased.*

64. The pelvis of a young child.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

65. The pelvis of a child.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

66. The pelvis of a young person, probably female, in which the three elements of the innominate bone have not completely coalesced.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

## B. Osteology of Adult Man.

In this series are arranged specimens which are either normal or show only slight individual peculiarities, *i. e.* deviations from the normal condition not sufficiently marked to be included in the Teratological Series *.

67. The articulated skeleton of a male European. O. C. 5569.

Height 1715=5 feet 7·5 inches.

Clavicle 157, humerus 340, radius 256, femur 482, tibia 378.

Cranium: circumference 527, length 186, breadth 140, index of breadth 753, height 131, index of height 704, capacity 1470.

*Hunterian.*

* For these see the 'Descriptive Catalogue of the Teratological Series,' 1872. It need scarcely be said that it is impossible to draw any definite line between individual peculiarity and actual malformation. In arranging and cataloguing a museum convenience in the disposition of the specimens has often to be taken into consideration.

68. The articulated skeleton of a male European. O. C. 5832.

Height 1732=5 feet 8·2 inches.

Clavicle 160, humerus 322, radius 248, femur 479, tibia 372.

Cranium: C. 543, L. 190, B. 142, Bi. 747, H. 139, Hi. 732, Ca. 1620.

*Hunterian.*

69. The articulated skeleton of a Frenchman. O. C. 5571.

Height 1698=5 feet 6·9 inches.

Clavicle 152, humerus 358, radius 254, femur 483, tibia 381.

Cranium: C. 543, L. 188, B. 152, Bi. 809, H. 125, Hi. 665, Ca. 1550. The forehead is unusually low and retreating.

*Purchased,* 1844.

70. The articulated skeleton of a French woman. O. C. 5572.

This and the last show well the differential sexual characters of the osseous system.

Height 1582=5 feet 2·3 inches.

Clavicle 135, humerus 300, radius 229, femur 422, tibia 350.

Cranium: C. 500, L. 178, B. 130, Bi. 730, H. 118, Hi. 663, Ca. 1210.

*Purchased,* 1844.

71. The articulated skeleton of an Englishman. O. C. 5570.

It has twenty-five præsacral vertebræ. The supplemental vertebra has the character of a last dorsal on the right side, and of a first lumbar on the left side.

Height 1807 = 5 feet 11·1 inches.

Clavicle 149, humerus 336, radius 253, femur 507, tibia 389.

Cranium: C. 510, L. 189, B. 138, Bi. 730, H. 134, Hi. 709, Ca. 1485.

*Purchased.*

72. The left half of the axial portion of a human skeleton, divided in the longitudinal and antero-posterior direction.

The proximal portions of the extremities are retained in this specimen.

*Purchased.*

73. The skull, vertebral column and pelvis, in longitudinal and antero-posterior section. Articulated. *Purchased.*

74. The separated bones of the skeleton of a male European, (wanting the skull). These are all severally described in the former catalogue, being numbered 5573 to 5707,

which numbers are retained upon them for the purpose of comparison with the descriptions in that work.

*Purchased.*

75. The skeleton of an Englishman, aged 38.

The vertebral column, ribs, sternum, pelvis, and bones of the right extremities are mounted in the "separate series" of homologous bones.

Clavicle 148, humerus 337, radius 248, femur 439, tibia 378.

*Prepared in* 1863.

76. The separated bones of an adult male, complete except the skull.

Clavicle 166, humerus 344, radius 255, femur 477, tibia 381.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

*Normal Crania.*

77. The skull of an Englishman, ♂*. O. C. 5733.

C. 546, L. 194, B. 144, Bi. 742, H. 139, Hi. 716, Ca. 1780.

*Purchased.*

78. The skull of an Englishman, ♂. O. C. 5734.

C. 520, L. 186, B. 144, Bi. 774, H. 130, Hi. 699, Ca. 1475.

*Purchased.*

79. The cranium of an Englishman, ♂. O. C. 5737.

"Skull of a young Englishman, who poisoned himself in the Island of Pulo Pinang" (Catalogue of 1831).

C. 473, L. 169, B. 127, Bi. 751, H. 126, Hi. 746, Ca. 1190.

*Presented by Dr. Henderson*, 1822.

80. The skull of a European, ♂. O. C. 5735.

C. 518, L. 183, B. 139, Bi. 760, H. 135, Hi. 738, Ca. 1510.

*Hunterian.*

81. The skull of a European, ♂. O. C. 5736.

C. 487, L. 170, B. 137, Bi. 806, H. 132, Hi. 776, Ca. 1375.

*Hunterian.*

82. The cranium of a European, ♂. O. C. 5743.

The right posterior molar is obliquely placed within its alveolus.

C. 547, L. 195, B. 145, Bi. 744, H. 133, Hi. 682, Ca. 1710.

*Hunterian.*

* The signs ♂ and ♀ are used when the sex is merely inferred from the characters of the skull; the words "male" and "female" when it is known from more certain evidence.

83. The cranium of a European, ♂. O. C. 5744.

From a person advanced in years. The coronal, sagittal, and lambdoidal sutures are partially obliterated. Both zygomatic arches are curiously bent inwards near the middle of their length.

C. 525, L. 188, B. 140, Bi. 745, H. 130, Hi. 691, Ca. 1500.

*Hunterian.*

84. The cranium of a European, ♀. O. C. 5747.

C. 518, L. 183, B. 135, Bi. 738, H. 115, Hi. 628, Ca. 1375.

*Hunterian.*

85. A cranium, attributed to a Chinese in the Catalogue of 1831, ♀. O. C. 5752.

C. 490, L. 178, B. 126, Bi. 708, H. 127, Hi. 713.

*Hunterian.*

86. A cranium, ascribed in the Catalogue of 1831 (No. 93, p. 16) to "a native of New Holland," but, as pointed out in the Catalogue of 1851, presenting none of the special characters of the Australian race: ♂. O. C. 5754.

C. 496, L. 175, B. 136, Bi. 777, H. 127, Hi. 726.

*Hunterian.*

87. A very brachycephalic skull, ♂.

C. 528, L. 173, B. 157, Bi. 908, H. 152, Hi. 879.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

88. A brachycephalic cranium, ♂.

The posterior half of the sagittal suture is situated in a longitudinal depression.

C. 527, L. 173, B. 155, Bi. 896, H. 134, Hi. 775.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

89. A cranium, ♂. O. C. 5749.

The occipital region appears to have been artificially flattened in infancy, perhaps unintentionally. The parietal foramina, situated in a smooth depressed obelion, are double on both sides.

C. 490, L. 165, B. 147, Bi. 891, H. 129, Hi. 781.

*Hunterian.*

90. The cranium of an Englishman, in which a longitudinal vertical section has been made passing through the left orbit, for comparison with the crania of an Australian

(No. 5760 O. C.) and of a Negro (No. 5761 O. C.), similarly prepared. O. C. 5762.

C. 516, L. 181, B. 138, Bi. 762, H. 128, Hi. 707.

*Prepared in* 1852.

91. The skull, said to be that of an aged female. Though perfectly edentulous, none of the cranial sutures are obliterated. O. C. 5886.

Probably the subject of the figure illustrative of the effects of the loss of teeth in both jaws, given by Hunter in his work 'On the Natural History of the Human Teeth,' pl. vii. (1771).

C. 498, L. 178, B. 132, Bi. 742, H. 114, Hi. 460, Ca. 1325.

*Hunterian.*

92. The skull of an aged edentulous person, ♂. O. C. 5887.

The cranial sutures are very simple and partially consolidated.

C. 495, L. 167, B. 140, Bi. 838, H. 127, Hi. 760.

*Hunterian.*

93. The skull of a person who had lost all the teeth during life. O. C. 5888.

The cranial sutures are more complex than in the last, and but partially consolidated.

C. 523, L. 190, B. 132, Bi. 695, H. 131, Hi. 689.

*Presented by Sir William Blizard,* 1811.

94. The skull of a person who had lost all the teeth during life. O. C. 5889.

The cranial sutures are not consolidated, except at the obelion.

C. 499, L. 177, B. 133, Bi. 751, H. 130, Hi. 730.

*Hunterian.*

95. The skull of an aged edentulous person.

The cranial sutures are almost entirely consolidated, and the parietal bones are much atrophied.

C. 510, L. 184, B. 134, Bi. 728, H. 129, Hi. 701.

*Crania of unusually large size (Megacephalic).*

96. A cranium (said to have been brought from India) of remarkable size and weight, the bones being everywhere

thick and massive, but with no signs of disease, past or present: ♂.

C. 573, L. 206, B. 148, Bi. 718, H. 151, Hi. 733, Ca. 1830.
*Purchased*, 1862.

97. A cranium of still larger size, and with the mastoid processes and the muscular ridges greatly developed: ♂.

The venous foramen behind the left mastoid process is unusually large.

C. 577, L. 209, B. 150, Bi. 718, H. 140, Hi. 670, Ca. 1900.
*Presented by H. C. Roods, Esq.*, 1851.

98. A very large and heavy skull, ♂.

The enlargement is chiefly in the parietal and occipital regions. The facial bones are comparatively thin and light. The sagittal and lambdoidal sutures are completely obliterated; the coronal nearly so. There is no evidence of disease of the bones; but the person to whom it belonged may have been hydrocephalic in early life.

C. 605, L. 210, B. 168, Bi. 800, H. 135, Hi. 643, Ca. 2060.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

99. A very large, long, depressed, and broad cranium, with prominent erect frontal region and comparatively small facial bones.

The mastoid processes and muscular ridges are feebly developed; and all the general characters (except size) are feminine. The peculiarities of form may be due to a slight amount of hydrocephalus in early life, causing an even distention of the cranial parietes. The squamosals almost meet the frontals at the pterion.

C. 575, L. 204, B. 153, Bi. 750, H. 132, Hi. 647, Ca. 2075.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

*Crania showing an unusual development of Wormian or other accessory ossicles in the sutures.*

100. The skull of a person of middle age who appears to have suffered in early life from hydrocephalus: ♂.

There is great bulging of the lateral walls of the cranium and of the squama occipitis, which has been forced away from the parietals, and the interspace filled with irregular Wormian ossicles. The cranium is now dense and solid, and the coronal and sagittal sutures are completely obliterated.

As this and some of the following are clearly pathologically altered specimens, the measurements are not of interest.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

101. A skull (said to be that of an Englishman) with a similar but less marked prominence of the squama occipitis, and with a very regular and nearly symmetrical development of Wormian ossicles in the lambdoidal suture. O. C. 5738.

There are also two such ossicles in the coronal suture (right side), where they are much less common. The mastoid processes are remarkably small.

*Purchased.*

102. The cranium of a European, with a similar prominence of the supraoccipital and a development of Wormian bones in the lambdoidal suture. O. C. 5892.

The upper third of the frontal suture is persistent. The squamosal sends a process to join the frontal on both sides of the head.

*Hunterian.*

103. A calvaria with a similar conformation of the occipital region and an anterior projection of the forehead. O. C. 5893. *Presented by Dr. W. E. Leach.*

104. A skull with an abnormally prominent occipital region, in which a horizontal suture, passing from one asterion to the other, intercepts a distinct interparietal bone, which is itself divided into two by a nearly vertical suture situated to the left of the middle line: ♂.

There is also a large Wormian bone at the anterior end of the sagittal suture, and a distinct ossicle (epipteric) placed above the great wing of each sphenoid.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

105. A cranium with a very prominent occipital region, a single large epactal and several small Wormian bones: ♂.

The frontal suture is persistent. The parietal foramina are both in the form of transverse linear apertures 6 millimetres in length.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

106. The cranium of a European with a prominent occiput and a beautiful and tolerably symmetrical arrangement of

Wormian ossicles in the lambdoidal and hinder part of the sagittal sutures: ♂. O. C. 5894.

*Presented by Sir William Blizard*, 1811.

107. A calvaria with numerous Wormian ossicles in the lambdoidal, and through the whole length of the sagittal and in the left coronal sutures. *Hunterian.*

108. The base of a cranium, showing a remarkable complexity of the lambdoidal suture.

109. The cranium of an Englishman, with the sutures generally simple, but with three large symmetrically disposed accessory ossifications in the supraoccipital: ♂. O. C. 5895. *Presented by Sir William Blizard*, 1811.

110. An English cranium, with a central and a pair of lateral large distinct ossifications in the supraoccipital: ♀. O. C. 5896. *Hunterian.*

111. A cranium with Wormian ossicles in the lambdoidal, sagittal, and coronal sutures.

112. The cranium of a Hindoo child, with a central and right lateral large ossification in the supraoccipital and a distinct ossicle in the right side of the coronal suture.

The milk-dentition has been in place; and the crown of the first permanent molar is just level with the alveolus. The nasals and basioccipital are wanting.

*Presented by Walter Cooper Dendy, Esq.*, 1869.

113. A cranium with two large Wormian bones in the anterior end of the sagittal suture, besides three very symmetrically disposed in the upper part of the lambdoidal suture: ♂. O. C. 5753.

*Hunterian.*

114. A cranium with numerous Wormian bones and a large accessory ossicle (epactal bone) in the lambdoidal suture: ♂. *Presented by G. W. Mackmurdo, Esq.*, 1867.

115. A mutilated skull, said (erroneously) to be that of a Negro, with well-marked independent ossicles in the pterion (epipteric bones) on both sides. O. C. 5369. *Hunterian.*

116. An elongated and remarkably low and narrow skull, with an epipteric bone on the right side. O. C. 5383.
C. 502, L. 183, B. 125, Bi. 683, H. 122, Hi. 667.
*Hunterian.*

117. The cranium of a new-born infant, with an abnormal median ossification in the frontal suture.
*Presented by Dr. G. F. A. Wilks*, 1878.

*Crania showing Metopism, or persistence of the frontal suture.*

118. A metopic cranium of a European, with a somewhat projecting supraoccipital region : ♂. O. C. 5745.
C. 550, L. 193, B. 147, Bi. 762, H. 136, Hi. 705.
*Hunterian.*

119. A metopic cranium of a European. O. C. 5759.
C. 530, L. 178, B. 156, Bi. 876, H. 144, Hi. 809.
*Presented by Sir William Blizard*, 1811.

120. A metopic cranium.
C. 510, L. 178, B. 144, Bi. 809, H. 130, Hi. 730.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

121. An edentulous metopic cranium.
Though all the teeth have been lost, and the alveoli absorbed, none of the cranial sutures are obliterated.
C. 547, L. 188, B. 151, Bi. 803, H. 130, Hi. 691.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

122. An upper portion of a metopic calvaria in which the frontal suture is unusually denticulated.

123. An elongated depressed cranium, with a slight annular constriction of the coronal region : ♀.
The bones are light and thin. All the teeth had been lost during life; but all the calvarial sutures, including the frontal, are persistent. The upper edge of both squamosals contain several independent ossifications.
C. 518, L. 185, B. 134, Bi. 724, H. 118, Hi. 638.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

*Crania the form of which appears to have been altered by premature synostosis of some of the sutures.*

124. The upper part of a calvaria, showing persistence of the frontal and obliteration of the left half of the coronal suture, with corresponding shortening of the left side of the cranium. The sagittal suture is nearly obliterated; and ossification has advanced further on the right side of the lambdoidal than on the left. O. C. 5901. *Hunterian.*

125. A cranium, said to be that of a Scot, showing well-marked "scaphocephaly," with complete parietal synostosis. O. C. 5732.

The other sutures are not obliterated, except the lower ends of the coronal and the apex of the lambdoidal.

C. 535, L. 198, B. 128, Bi. 646, H. 140, Hi. 707, Ca. 1530.

*Presented by Sir Everard Home, Bart.*, 1809.

126. A similar cranium, in which the parietal region is still more laterally compressed and carinated.

The squamosals join the frontals on both sides. The basilar suture is united; but the posterior molars are not in place.

C. 537, L. 203, B. 125, Bi. 616, H. 132, Hi. 650, Ca. 1320.

*Presented by F. Kiernan, Esq.*, 1871.

127. A similar cranium, said to be that of "a Negro from the Mozambique." O. C. 5373.

The squamosals articulate with the frontals on both sides.

C. 490, L. 185, B. 111, Bi. 600, H. 135, Hi. 730, Ca. 1190.

*Purchased.*

128. A well-marked scaphocephalic calvaria.

L. 216, B. 119, Bi. 551.

*Purchased*, 1854.

129. The cranium of a native Fijian, exhibiting a remarkable degree of scaphocephaly, with complete parietal synostosis, ♂.

Brought by the donor from Ovalau. See Journ. Anthrop. Inst., Feb. 11th, 1879.

C. 562, L. 214, B. (frontal) 116, B. (parietal) 112, Bi. 524, H. 150, Hi. 701, Ca. 1620.

*Presented by Alfred Corrie, Esq., Surgeon R.N.*, 1877.

130. A skull in which the sagittal suture appears to have been prematurely obliter ated.

The consequent deformity is less characteristic than in the preceding specimens. The other calvarial sutures are becoming consolidated; but of the sagittal there is no trace; and the enlarged vascular foramina, so commonly associated with this condition of cranium, are well marked. The specimen was obtained by the donor in the Mauritius; but the race to which it belonged is unknown.

C. 500, L. 185, B. 118, Bi. 638, H. 129, Hi. 697.

*Presented by Staff-Surgeon Robert Allan, H.M. Army*, 1878.

131. A scaphocephalic calvaria, said to be that of "a Gentoo from the banks of the Ganges." O. C. 5557.

The bone, as is frequent in these cases, presents numerous vascular foramina in the neighbourhood of the obliterated sagittal suture; and in this specimen the internal surface has a very marked reticulated appearance, as if caused by a plexus of vessels imbedded in it.

L. 195, B. 112, Bi. 574.

*Brookes's Museum. Purchased*, 1828.

132. The greater portion of a cranium, consisting of the frontal, parietal, and occipital bones of a child ("a Gentoo from the banks of the Ganges") affected with parietal synostosis, and of an elongated form, but differing from the preceding crania in the extraordinary prominence of the parietal eminences. O. C. 5556.

The bone forming the groove for the lodgment of the superior longitudinal sinus is reticulated by numerous channels for blood-vessels, somewhat as in the last specimen.

*Brookes's Museum. Purchased*, 1828.

133. A long and narrow skull, also said to be that of "a Gentoo:" ♂. O. C. 5555.

It belonged to a powerful, muscular man. It presents considerable resemblance to the last, though in a less exaggerated degree. Though the cranium is generally narrow, the parietal eminences are very prominent. There is partial parietal synostosis, but affecting only the middle part of the sagittal suture, and apparently of recent date. This is therefore, in all probability, not an illustration of the effects of premature synostosis, but is placed here on account of its resemblance to some of the preceding specimens.

C. 560, L. 208, B. 138, Bi. 663, H. 128, Hi. 615.

*Purchased.*

134. A mutilated calvaria of very peculiar form, found in a garden at Camberwell.

It differs from the scaphocephalic cranium in the retreating forehead, contracted coronal region, and great elevation behind the bregma. Though the lambdoidal and squamosal sutures are free, the frontal, sagittal, and coronal are completely obliterated, and the premature synostosis of the latter may have given rise to the deformity. The superior occipital curved line and inion are immensely developed.

L. 178, B. 138, Bi. 775.

135. A cranium affected with parietal synostosis, occipital protuberance, and great and unsymmetrical elevation of the frontal region. O. C. 5891.

C. 520, L. 188, B. 137, Bi. 729, H. 150, Hi. 798.

*Hunterian.*

136. A cranium showing irregular consolidation of the sutures.

The lambdoidal, squamosal, and lower ends of the coronal sutures are open, as is the spheno-parietal on the right side. The left spheno-parietal suture is obliterated. The sagittal and upper part of the coronal sutures are consolidated; and the bone around presents numerous enlarged vascular canals, and at two spots near the upper anterior angle of the parietals is atrophied, even to the extent of being perforated. Between these spots there is a faint trace of the median suture.

From the Collection of the late Dr. Blundell.

C. 520, L. 194, B. 133, Bi. 686, H. 139, Hi. 716.

*Presented by Dr. G. A. F. Wilks*, 1878.

137. A small skull of a female European, compressed and vertically elevated. O. C. 5897.

It exhibits premature synostosis of the coronal and posterior half of the sagittal suture. The lambdoidal suture is perfectly open, and contains several Wormian bones.

C. 465, L. 166, B. 130, Bi. 783, H. 139, Hi. 837.

*Hunterian.*

*Crania presenting various other anomalies of conformation.*

138. A short round skull, with the frontal region extremely low and narrow, possibly from the effects of artificial compression in infancy, as in the "*déformation toulousaine.*"

The sutures are all partially obliterated, but only by the regular and progressive synostosis of advancing age. The inion is greatly developed.

C. 497, L. 170, B. 145, Bi. 853, H. 135, Hi. 794.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

139. The skull of an English child about seven years of age, slightly plagiocephalic, every portion of the right side of the cranium being in advance of the corresponding part of the left. O. C. 5904.

As the sutures are quite normal, the obliquity is probably due to the position in which the child was habitually carried during infancy. The first true molars are nearly in place. The basioccipital and the exoccipitals have become detached and are missing.

*Hunterian.*

140. A skull with the left paroccipital process greatly developed and presenting a flattened articular surface for the corresponding transverse process of the atlas, ♂.

C. 525, L. 176, B. 153, Bi. 869, H. 130, Hi. 739.

141. The base of a skull, with the atlas, of an Englishman. The paroccipital process on the left side is a small distinct tubercle; but on the right side it is so developed as to articulate at its extremity with the transverse process of the atlas. O. C. 5899.

*Presented by Joseph Toynbee, Esq.*

142. A cranium having a flattened articular surface or "third condyle" on the anterior edge of the foramen magnum. O. C. 5741.

C. 480, L. 162, B. 142, Bi. 877, H. 124, Hi. 766.

*Purchased.*

143. A cranium, said to be "from Madagascar," but with all the characters of the European skull. As an individual peculiarity it exhibits an almost symmetrical pair of tubercles on the inferior surface of the basioccipital. O. C. 5902. *Hunterian.*

144. A mutilated cranium, preserved on account of the peculiar conformation of the occipital bone, especially the great development of the inion.

145. The skull of a person advanced in life, showing a remarkable degree of platybasic deformity ("plastic deformation" of Barnard Davis), ♂.

Most of the molar teeth have been lost during life. All the calvarial sutures are partially obliterated. There is much lateral bulging of the squamosal region; the bones generally, but especially those at the base of the cranium, are greatly atrophied; and the occipital condyles and anterior margin of the foramen magnum are deeply sunk towards the interior of the cranium.

The specimen was obtained in Paris.

C. 530, L. 184, B. 152, Bi. 826, H. 99, Hi. 538.

*Purchased*, 1878.

*Preparations of Skulls.*

146. The skull of a male Negro, aged 22, in which the slender stylo-hyals, which had not yet become united by bone with the tympano-hyal processes, are preserved.

Prepared in 1870, from a man who died in a London workhouse, of unknown history, but with well-marked Negro features, colour, and hair.

*Purchased.*

147. A skull with a vertical transverse section passing through the bones of the face.

148. A skull in various sections. The osseous labyrinth of the ear is exposed on the left side. *Purchased.*

149. The bones of an adult skull, separated and artificially connected together *à la Beauchène*. O. C. 5885. *Purchased.*

150. A skull similarly prepared.

*Presented by G. W. Mackmurdo, Esq.*, 1867.

151. The separated bones of an adult human skull, with the names attached to them by which they are usually known in anthropotomy, and also those by which they are designated in general comparative morphology.

152 A to P. Fifteen preparations of the human temporal bone, showing in various sections the osseous structures connected with the organ of hearing.

*Prepared by M. Vasseur, Paris. Purchased*, 1862.

153. A case containing eleven horizontal sections of the frontal bone, showing variations in the condition of the frontal air-sinuses, and their absence in infancy. The sex and age of the individual from whom the preparation was taken is marked on each.

154. A case containing ten similar sections.

155. A case containing six preparations of the frontal bone to show the sinuses.

*The above were prepared by and purchased from Mr. E. H. Willmot*, 1858.

156. A series of twenty-two specimens of the human hyoid bones, showing individual variations. The age and sex of the person is marked on each bone in all cases in which they are known.

157. Five specimens of the hyoid bones, showing various degrees of ossification in the anterior arch (stylo-hyoid ligament).

158. A completely ossified thyroid cartilage.

*Pelves.*

159. The pelvis of an English female, aged 19.

*Prepared in* 1871.

160. The pelvis of an English female, aged 27.

*Prepared in* 1875.

161. The pelvis of an English female, aged 34.

*Prepared in* 1877.

162. The pelvis of an English female, aged 48.

*Prepared in* 1878.

163. The pelvis of an English female, aged 49.

*Prepared in* 1876.

164. The pelvis of an English female, aged 55.

*Prepared in* 1875.

165. The pelvis of an English female, aged 64.

*Prepared in* 1877.

166. The pelvis of an English female, aged 66.

*Prepared in* 1877.

167. The pelvis of an English female, aged 69.

*Prepared in* 1876.

168. The pelvis of a middle-aged female.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

169. The pelvis of an English female, aged 70.
*Prepared in* 1876.

170. The pelvis of an English female, aged 70.
*Prepared in* 1877.

171. The pelvis of an English female, aged 79.
*Prepared in* 1874.

172. The pelvis of an English female, aged 80.
*Prepared in* 1878.

173. The pelvis of an English male, aged 47. *Prepared in* 1878.

174. The pelvis of a male.
*Presented by G. W. Mackmurdo, Esq.*, 1867.

Besides the above, the collection includes a large number of the separate bones of the human body, showing individual variations, arranged in drawers in the Eastern Museum, and which it has not been thought necessary to enumerate in this Catalogue. Of these very many were presented by G. W. Mackmurdo, Esq., in 1867.

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*The following specimens, to No. 222 inclusive, exhibit the structure of different parts of the human skeleton by means of sections.*

175. A vertical transverse section of the human cranium. O. C. 5766. *Hunterian.*

176. A right parietal bone, prepared by removal of the greater part of the outer table to show the diploë, with its venous sinuses.

177. The axis vertebra, vertically and longitudinally bisected. O. C. 5767. *Prepared in* 1851.

178. The fifth cervical vertebra, vertically and longitudinally bisected. O. C. 5768. *Prepared in* 1851.

179. The seventh cervical vertebra, vertically and transversely bisected. O. C. 5769. *Prepared in* 1851.

180. A middle dorsal vertebra, vertically and longitudinally bisected. O. C. 5771. *Prepared in* 1851.

181. The twelfth dorsal vertebra, vertically and transversely bisected. O. C. 5772. *Prepared in* 1851.

182. The second lumbar vertebra, vertically and transversely bisected. O. C. 5773. *Prepared in* 1851.

183. The third lumbar vertebra, vertically and transversely divided. O. C. 5776. *Prepared in* 1851.

184. The fourth lumbar vertebra, vertically and longitudinally bisected. O. C. 5775. *Prepared in* 1851.

185. A lumbar vertebra, with a portion of the body removed to show its internal structure. *Purchased.*

186. The sacrum, vertically and longitudinally bisected. O. C. 5777. *Prepared in* 1851.

187. The sacrum, vertically and transversely bisected.

188. The sacrum, transversely bisected through the middle of the second vertebra. O. C. 5778. *Prepared in* 1851.

189. The body of the sternum, longitudinally and transversely bisected. O. C. 5779. *Prepared in* 1851.

190. The first rib, longitudinally bisected. O. C. 5780. *Prepared in* 1851.

191. A sixth rib, longitudinally and horizontally bisected. O. C. 5781. *Prepared in* 1851.

192. A sixth rib, longitudinally and vertically bisected. O. C. 5782. *Prepared in* 1851.

193. The clavicle, longitudinally bisected. O. C. 5783. *Prepared in* 1851.

194. The left scapula, transversely bisected through the glenoid cavity. O. C. 5784. *Prepared in* 1851.

195. The upper portion of a similarly bisected scapula, in which the texture of the coracoid and acromion is exposed in longitudinal section. O. C. 5785. *Hunterian.*

196. The upper portion of a similarly bisected scapula of a child. O. C. 5786. *Hunterian.*

197. The upper portion of a similarly bisected scapula of an infant. O. C. 5787. *Hunterian.*

198. The posterior half of a longitudinally bisected humerus. O. C. 5788. *Hunterian.*

199. A radius, longitudinally bisected. O. C. 5789.
*Prepared in* 1851.

200. An ulna, longitudinally bisected. O. C. 5790.
*Prepared in* 1851.

201. The os magnum, bisected. *Purchased.*

202. The three bones of the pollex, longitudinally bisected.
*Purchased.*

203. The right os innominatum, with the ilium longitudinally bisected. O. C. 5795. *Hunterian.*

204. The right ilium of a child, longitudinally bisected.
*Hunterian.*

205. The left os innominatum, longitudinally bisected through the acetabulum. O. C. 5797. *Hunterian.*

206. The left os innominatum, transversely bisected through the acetabulum. O. C. 5798. *Hunterian.*

207. The hinder half of the right femur, longitudinally bisected. O. C. 5799. *Hunterian.*

208. The left femur, longitudinally bisected. O. C. 5800.
*Hunterian.*

209. The proximal part of a left femur, longitudinally bisected. O. C. 5801. *Hunterian.*

210. The proximal part of a left femur, from the fore part of which a section has been obliquely removed, passing through the middle of the head. O. C. 5802. *Hunterian.*

211. A longitudinal section of the upper extremity of the femur, prepared in illustration of a memoir by the donor, "Ueber die innere Architectur der Knochen und ihre Bedeutung für die Frage vom Knochenwachsthum," in Virchow's 'Archiv,' vol. L. p. 389 (1870).
*Presented by Dr. Julius Wolff*, 1873.

212. Half of the longitudinally bisected proximal end of a femur, from which a great proportion of the animal matter has been removed, leaving the earthy part, and showing the mechanical arrangement of the walls of the cancelli. O. C. 5803. *Presented by Edward Stanley, Esq.*

213. Two portions of a longitudinally bisected shaft of a femur, similarly prepared. O. C. 5804.
*Presented by Edward Stanley, Esq.*

214. A longitudinal section from the distal end of a femur, similarly prepared, showing with great clearness the delicate and elegant reticular arrangement of the fine columnar and lamellar walls of the cancelli. O. C. 5805.
*Presented by Edward Stanley, Esq.*

215. The posterior half of a longitudinally bisected left tibia. O. C. 5806. *Hunterian.*

216. A fibula, longitudinally bisected. O. C. 5807.
*Prepared in* 1851.

217. A patella, vertically and transversely bisected.

218. An astragalus, bisected. *Purchased.*

219. A calcaneum, bisected. *Purchased.*

220. A navicular bone, bisected transversely. *Purchased.*

221. A cuboid bone, bisected. *Purchased.*

222. The three bones of the hallux, longitudinally bisected.
*Purchased.*

*Variations of the Human Skeleton in regard to Stature.*

223. The articulated skeleton of Charles Byrne, who was exhibited in London as "O'Brian, the Irish Giant," and died in 1783. O. C. 5905.

The following record of the death of the individual to whom this skeleton belonged is extracted from the 'Annual Register Chronicle,' June 1783, vol. xxvi. p. 209:—

"In Cockspur Street, Charing Cross, aged only 22, Mr. Charles Byrne, the famous Irish Giant, whose death is said to have been precipitated by excessive drinking, to which he was always addicted, but more particularly since his late loss of almost all his property, which he had simply invested in a single bank note of £700.

"Our philosophical readers may not be displeased to know, on the credit of an ingenious correspondent who had opportunity of informing himself, that Mr. Byrne, in August 1780, measured eight feet; that in 1782 he had gained two inches; and after he was dead he measured eight feet four inches.

"Neither his father, mother, brother, nor any other person of his family, was of an extraordinary size."

The above-named heights are evidently exaggerations, as the actual height of the skeleton, in which due allowance appears to be given for the intervertebral substances, is only seven feet seven inches.

The posterior molars are in place; and the epiphyses of the long bones are united, though the crests of the ilia and posterior borders of the scapulæ are still free. The corresponding limb-bones of the opposite sides present great differences in dimensions. The bones of the cranium are thick and massive. The glabella, supraorbital ridges, mastoid processes, all the muscular ridges and the bones of the face, and especially the lower jaw, are greatly developed; but the alveolar arches and teeth are scarcely larger than those of a man of ordinary stature. The squamosal joins the frontal for more than half an inch on the left side, but does not quite reach it on the right. The frontal region is low and retreating, and the cranial cavity small for the external size of the skull.

Height 2310 = 7 feet 7 inches.

Clavicle, *r.* 228, *l.* 220; humerus, *r.* 450, *l.* 430; radius, *r.* 334, *l.* 325; hand, *r.* 255, *l.* 256; femur, *r.* 625, *l.* 642; tibia, *r.* 541, *l.* 537; foot, *r.* 325, *l.* 318.

Cranium: C. 593, L. 214, B. 148, Bi. 692, H. 147, Hi. 687, Ca. 1520.

A clever contemporary caricature sketch of O'Brian by Rowlandson hangs in the office of the Conservator of the Museum; and a boot and a slipper which he wore are preserved with the skeleton.

*Hunterian.*

224. The articulated skeleton of a man about six feet nine inches in height, who died in London in 1854, having been known as "Freeman, the American Giant."

Height 2030 = 6 feet 8·0 inches.

Clavicle, *r.* 170, *l.* 175; humerus, *r.* 413, *l.* 416; radius, *r.* 300, *l.* 298; femur, *r.* 588, *l.* 588; tibia, *r.* 478, *l.* 477.

Cranium: C. 540, L. 191, B. 145, Bi. 759, H. 149, Hi. 780. Ca. 1630.

*Purchased.*

225. The right os innominatum, with the femur and tibia, of a man of unusually large stature.

The length of the femur is 565. The tibia is approximately

510; but the inner side of the lower half has been lost and is restored in wood. According to the calculation that the length of the femur is to the entire height as 275 : 1000, this would give a height of 2005, or 6 feet 8 inches.

226. The right and left femurs of a person of great stature.

Length of the right femur 550, of the left 544.

227. The skeleton of a female child of unusually stunted growth and arrested osseous development, who was exhibited in London in 1824, under the name of "Caroline Crachami, the Sicilian Dwarf," of the reputed age of nine years. O. C. 5906.

Some particulars of her life and of the post mortem examination are given in Sir Everard Home's 'Lectures on Comparative Anatomy,' vol. v. (1828) p. 191, from which the following is extracted.—"The child when I saw it could walk alone, but with no confidence. Its sight was very quick, much attracted by bright objects, delighted with every thing that glittered, mightily pleased with fine clothes, had a shrill voice, and spoke in a low tone; had some taste for music, but could speak few words of English; was very sensible of kindness, and quickly recognized any person who had treated it kindly."

The height of the skeleton is 19·8 inches = 505 millims. Only the deciduous teeth are in place, of which the first upper molars in both jaws have suffered decay. The right lateral upper incisor would appear not to have been developed. The fontinelle is not quite closed; and the ossification of the bones of the trunk and extremities is scarcely more advanced than in a child at birth.

With this skeleton are preserved casts of the face, of the arm and hand, and of a foot of the same individual, also the stockings and ring which she wore; and in the Conservator's office is an oil-painting from life, of the natural size, side and front view, by A. Chalon.

*Presented by Sir Everard Home, Bart.*

## II. DENTITION OF MAN.

The dental formula in adult man is :—i. $\frac{2}{2}$, c. $\frac{1}{1}$, p. $\frac{2}{2}$, m. $\frac{3}{3}$, $=\frac{8}{8}$: total 32. The milk-teeth are :—i. $\frac{2}{2}$, c. $\frac{1}{1}$, m. $\frac{2}{2}$, $=\frac{5}{5}$: total 20.

228. The first set or milk-teeth of a child about two years of age, wanting the posterior molars. *Purchased*, 1858.

229. The complete set of first or milk-teeth of a child about six years of age.

230. A preparation of the upper and lower jaws of a child about five years of age, showing the complete milk-dentition, with the germs of the permanent teeth. The roots of the teeth in place and the crowns of the successional teeth are exposed by the removal of the outer alveolar walls. *Purchased*, 1862.

231. A similar preparation from a child somewhat more advanced in age. *Purchased*, 1862.

232. A similar preparation from a child about seven years of age, the first permanent molars being in place, as well as the milk-teeth. O. C. 5835.

Prepared for JOHN HUNTER by his pupil WILLIAM LYNN, afterwards President of the Royal College of Surgeons.

*Hunterian.*

233. The skull of a child about eight years of age, showing the state of the dentition. All the milk-incisors are shed; the milk-molars and canines are retained. The central permanent incisors and the first permanent molars are in place. *Presented by G. W. Mackmurdo, Esq.*, 1867.

234. A preparation of the upper and lower jaws of a nearly adult person, showing the teeth *in situ*, with their roots exposed. The posterior molars have not yet risen into place. *Purchased*, 1862.

235. A portion of the human skull, including the upper and lower jaws, from the right side of which the teeth have been extracted and are displayed separately. O. C. 5833.

*Hunterian.*

236. The left side of the upper and lower jaws of an adult, in which the roots of the teeth have been exposed by removing the outer walls of the alveoli. O. C. 5834.

*Mus. Brookes.*

237. A human premolar tooth, longitudinally bisected. O. C 5876. *Presented by Sir Everard Home, Bart*

The following twenty-one Hunterian specimens, to No. 258 inclusive, are described and figured in Hunter's work 'On the Natural History of the Human Teeth,' 1771.

238. The left halves of the upper and lower jaws of a fœtus of five months, showing the common alveolar groove which lodged the formative matrices of the teeth. O. C. 5836.

The inner wall of the groove is most developed; rudiments of the partitions appear at the bottom of the anterior alveoli.

*Op. cit.* pl. viii. figs. 1 & 2.

239. The left halves of the upper and lower jaws of a fœtus of seven months, showing the development of the inner wall to an equality with the outer wall of the alveoli, and the more or less completed partitions of the sockets of the incisors and canines. O. C. 5837.

*Op. cit.* pl. viii. figs. 3 & 4.

240. The left halves of the upper and lower jaws of a fœtus of eight months, showing the more nearly completed sockets. A large vacuity still remains in the partition between those of the two molars. O. C. 5838.

*Op. cit.* pl. viii. figs. 5 & 6.

241. The right ramus of the lower jaw of apparently the same fœtus: the calcified germs of the two incisors and the canine are displayed *in situ*; similar germs, with th calcified summits of the pulps, of the two deciduou molars are separately displayed. O. C. 5839.

242. The lower jaw of an infant nine months old. O. C. 5840.

The two mid incisors have cut the gum; the crowns of the outer incisor, canine, milk-molars, and first true molar may be seen through the openings of the formative sockets, which openings are contracted above the molars.

*Op. cit.* pl. viii. fig. 7.

243. The left ramus of the lower jaw of an infant of nine months. O. C. 5841.

The mid incisor has cut the gum; the crowns of the outer incisor, canine, milk-molars, and first true molar are exposed by the removal of the outer alveolar wall; the calcified summits

of the permanent incisors and canine are exposed by the removal of the inner alveolar wall. The dried remains of the gum remain above the formative alveoli of the undeveloped teeth.

244. Part of the right upper jaw of an infant nine months old. O. C. 5842.

The mid incisor is beginning to cut the gum; the crowns of the outer incisor, canine, two milk-molars, and the calcified summit of the first true molar and of the permanent mid incisor are exposed by removal of the inner wall of the alveoli.

245. The left upper jaw of a young infant. O. C. 5843.

The mid incisor and apparently the second incisor, which is lost, have cut the gum; the crowns of the canine and milk-molars are seen in their formative sockets. The formative sockets of the permanent incisors are shown, and also that of a canine, or supernumerary tooth, behind them, with the calcified germ of the tooth in an inverted position, the point being directed upwards against the bony palate, and the pulp-cavity opening towards the gum. The maxillo-premaxillary suture remains on the palate and on the inner surface of the nasal passage.

*Op. cit.* pl. viii. fig. 9.

246. The right upper jaw of apparently the same infant. O. C. 5844.

The two incisors have cut the gum. The germ of a corresponding canine, or supernumerary tooth, is shown in a similar inverted position.

247. A section of the right upper jaw of a young infant. O. C. 5845.

The two incisors have cut the gum; the crowns of the canine, milk-molars, and first true molars are exposed by the removal of the outer alveolar wall, and the germs of the permanent incisors by the removal of the inner alveolar wall.

248. A section of the lower jaw of a child. O. C. 5846.

It shows the mid incisor and first milk-molar, and the sockets of the intervening outer incisor and canine, from which the teeth have been removed. The formative alveoli of the permanent mid incisor and of the first bicuspid are also shown.

Two views of this preparation are given in the work 'On the Teeth,' pl. ix., in which Hunter's description of fig. 2 is—"The *incisor* of a child is standing in its socket, and the adult *incisor* forming in a distinct socket, underneath;" and of fig. 3—"to show that the bicuspides are formed in distinct sockets of their own, and not in the socket of the grinder, which stands above."

249. The left upper maxillary bone of a child. O. C. 5847.

The two milk-molars are in place: the canine has been removed from its socket, and the premaxillary part of the jaw removed to expose the germ of the permanent canine in its formative socket. The germs of the first bicuspid and first true molar are similarly exposed from the inner side. The crowns of an incisor and canine are separately displayed.

250. A section of the right upper maxillary bone of a child. O. C. 5848.

The two milk-molars are in place. The deciduous incisors and canine have been removed; behind their sockets the calcified summits of the permanent incisors may be seen through the wide gubernacular openings. The crown of the first true molar may be seen in its formative socket.

251. The left maxillary and left ramus of the mandible of a child, in which the deciduous teeth had been acquired and the first true molar was beginning to rise into place, being more advanced in the lower than the upper jaw. O.C. 5849.

The germs of the successional teeth and of the second true molars are exposed by the removal of the outer walls of their formative alveoli.

These preparations are figured (reversed) in pl. ix. fig. 1, *op. cit.*, with the following description:—"One side of the Upper and Lower-jaw of a subject about eight or nine years of age, where the *Incisores* and *Cuspidati* of the *Fœtus* were shed, and their successors rising in new sockets; shewing likewise the two Grinders of the child, with the *Bicuspides* forming underneath. The first adult Grinder was ready to cut the gum; and the Second Grinder in the Lower-jaw is lodged in the root of the coronoid process, and in the Upper-jaw it is in the tubercle."

252. The left maxillary and a considerable proportion of the mandible of a child, at the same stage of dentition as the foregoing. O. C. 5850.

The second milk-molar is in place in the upper jaw; the alveoli of the antecedent milk-teeth have been removed to expose those containing the calcified crowns of the permanent incisors, canine, and first bicuspid. The first true molar is exposed in its socket, and that of the second true molar is shown behind. In the lower jaw the two milk-molars on each side are left standing; the crowns of the four permanent incisors,

canines, and anterior bicuspids are exposed by the removal of the front walls of their formative sockets. The crowns of the second bicuspids seem not to have begun to be calcified.

253. The back part of the left ramus of the same lower jaw. It shows the widely open alveolus of the first true molar, the crown of which is there exposed, and the formative socket of the second true molar. O. C. 5851.

254. (15.) The right ramus of the lower jaw of a child. O.C. 5852.

The deciduous series, viz. two incisors, a canine, and two molars, are in place; the formative sockets of the successional teeth and of the first and second true molars are exposed from the inner side. The matrices of the second bicuspid and second true molar had not begun to be calcified.

255. The left rami of four lower jaws of individuals at different periods of life. O. C. 5853.

The youngest shows the five deciduous teeth in place; the next shows the two permanent incisors, the deciduous molars, and first true molar, the second true molar rising into place, and the permanent canine exposed in its formative socket; the third shows the permanent incisors, canine, bicuspids, and first and second true molars in place, all the deciduous teeth having been shed; the fourth shows the full permanent series.

These specimens are the subjects of fig. 2, pl. xvi., *op. cit.*, where they are represented larger than natural, and are thus described:—"Fig. 2. Four Lower-jaws at different periods of life, from the age when the five shedding teeth are completely formed, to that of a complete set. This figure shows four things:—1. The lengthening of the jaw backwards, which is seen by the oblique line made by the four condyles; 2. The gradual rise of the two processes above the line of the teeth; 3. The gradual increase of the teeth in proportion as the jaw lengthens; and 4. The part formed, always keeping the same size."

256. Sections of the right halves of the upper and lower jaws, with the outer alveolar wall removed to expose the implanted roots of the teeth. O. C. 5854.

This specimen is the subject of fig. 1, pl. vi., *op. cit.*, in the description of which Hunter remarks:—"The length of each fang is at once seen with respect to its neighbour, and this kind of articulation" (gomphosis) "pointed out at one view."

257. The left upper maxillary bone, in which the canine is

exposed in its socket, the crown not having been protruded beyond the opening of the sockets of the contiguous teeth. O. C. 5855.

This specimen is the subject of fig. 8, pl. viii., *op. cit.*, and is described as follows:—"A sketch of an Upper-jaw where the *Cuspidatus* of that side had been formed high up in the Jaw, and, therefore, never would appear through the Gum."

258. The fore part of a human lower jaw, showing the incisors, canines, and bicuspids, with their crowns worn down to a flat surface. O. C. 5856.

The following specimens, illustrative of the structure, development, and succession of the teeth, are arranged on slides, in a glazed frame or case, and are mostly figured in John Hunter's work 'On the Teeth.' *Hunterian.*

259. The teeth on this slide (O. C. 5857) are the subjects of plate v. *op. cit.*, where they are described as follows:—

"The sixteen teeth from one side of both jaws, taken out of their sockets to expose the whole of each tooth.

"Row 1.—The teeth of the lower jaw; the five single are similar to those in the upper jaw, but the grinders in this have only two fangs.

"(*a. a.*) The two incisors.

"(*b.*) The cuspidatus; showing, in the same view, how much longer it is than the others.

"(*c. c.*) The bicuspides.

"(*d. d.*) The first two grinders, having two fangs.

"(*e.*) The third grinder, or dens sapientiæ, having also but two fangs.

"Row 2.—The teeth of the upper jaw; the lettered references apply to this as to the first row.

"(*a. a.*) The two incisors, showing the hollowed inner surface of the body of those teeth.

"(*b.*) The cuspidatus, showing the same.

"(*c. c.*) The bicuspides, showing the two points on the basis of each; the first of them has a forked fang.

"(*d. d.*) The first two grinders, having three fangs.

"(*e.*) The third grinder, or dens sapientiæ, having also three fangs."

260. A slide supporting sections of the teeth of Man, the Horse, and the Elephant, which have been subjected to the action of fire in order to show more clearly the distinction

between the enamel and other constituents of the teeth, the minute quantity of animal matter in the enamel not affecting its colour when heated. Most of the specimens are figured in plates xiv. & xv. *op. cit.*, where they are described as follows:—

"(*a.*) Fig. 17.—An incisor slit down its axis, to show the enamel upon the body of the tooth, covering much more of the convex than of the concave part."

"(*b.*) Fig. 18.—An incisor worn so much down as to expose the whole end of the bony part, a circle only of enamel remaining."

"(*c.*) Fig. 16.—A cuspidatus, showing the same circumstance."

"(*d.*) Fig. 15.—A lateral view of the enamel of a bicuspis cut longitudinally."

"(*e.*) A similar view of the enamel of a molaris."

"(*f.*) Fig. 14.—Another view of the enamel of a molaris."

"(*g.*) Fig. 12.—The basis of a molaris whose points were worn down, and the bony part which projected into those points exposed."

"(*h.*) Fig. 13.—A molaris, whose bony part is wholly exposed, and only a circle of enamel left, covering the sides all round."

"(*i.*) Fig. 20.—The grinding-surface of a horse's molaris, to show the irregular course of the enamel."

(*j.*) A section of one of the denticuli of an Asiatic elephant's molar, showing the dentine, enamel, and cement. Only a very small proportion of the dentine or "bony part" appears in this section; it is enclosed in the enamel.

(*k.*) A horizontal section of the molaris of a horse, to show the course of the enamel. Both the dentine and cement are blackened by the action of fire.

261. (Slide 4.) A series of teeth in longitudinal section, to show the size and shape of their pulp-cavities. O. C. 5859.

Three are canines, two bicuspids, and two molars. There are also two transverse sections of fangs, the crown of a molar not fully developed, and an upper molar with a large concretion of tartar attached to it.

262. (Slide 5.) Longitudinal and transverse sections of human permanent teeth. O. C. 5860.

*a, a.* The incisors.

*b.* The canine.

*c.* A premolar or bicuspid, showing, by the double pulp-

cavity, that the apparently single fang consists of two connate fangs.

*c'*. A premolar, in which the two fangs are distinct at the lower half of the root.

*d*. A molar, showing, by the double pulp-cavity of one of its apparently single fangs, that this consists of two connate fangs. (The above are the subjects of figs. 1–5 of pl. xiv. *op. cit.*)

*e*. A molar, with the pulp-cavity exposed in the crown and one of the fangs broken away.

*f*. A molar, showing the divisions of the pulp-cavity continued into the diverging fangs.

*g*. A transverse section of the crown of a molar, showing the part of the pulp-cavity next the grinding-surface.

*h*. A transverse section of the crown of a molar, showing the part of the pulp-cavity next the fangs. (The two preceding specimens are the subjects of figs. 8 & 9, pl. xiv. *op. cit.*)

*i*. This specimen is the subject of fig. 7, pl. xiv., where it is thus described :—" A molaris of the lower jaw, with part of its fangs sawed off, to show that the sides of the cavity or canal have grown together, and divided it into two small canals, which are represented by two dark points." In other words, the two seemingly single fangs consist each of two connate fangs.

263. (Slide 6.) A series of the deciduous teeth of a child, "from their being complete to their utmost decay." There is also a deciduous incisor of a horse, with the germ of the permanent incisor about to succeed it. O. C. 5861.

The human teeth are the subjects of figs. 2 & 3, pl. xiv. *op. cit.*

264. (Slide, Div. 7.) "The teeth of one side of both jaws, from a child of five or six years of age." O. C. 5862.

The deciduous incisors are completed, and the crowns of their successors formed. The fang of the deciduous canine is not quite complete; and the crown of the successor is about half-formed. The fangs of the first milk-molars are nearly completed; and the summit of the first upper premolar has begun to be calcified. The fangs of the second milk-molar are half-formed and widely open; the second premolar has not begun to be calcified. The crown of the first true molar is more than half-formed.

These are the subjects of fig. 1, pl. x. *op. cit.*

265. (Slide, Div. 8.) "The teeth of one side of both jaws, from a child of seven years of age." O. C. 5863.

The fang of the first deciduous incisor is partially absorbed,

more in the upper than the lower tooth; part of the fang of the succeeding incisor is formed. Of the second incisor a smaller proportion of the fang of the deciduous tooth is absorbed, and of that of the permanent one is developed. The whole of the deciduous canine, and of the crown of the permanent one, are completed. The fangs of the upper milk-molars are more absorbed than those of the lower ones, and the crowns of the upper premolars are proportionally more advanced. The whole of the crown, with the beginning of the root of the first true molar, is now formed. These teeth form the subjects of fig. 2, pl. x. *op. cit.*; and in the description of the plate the author remarks:—"This is an age in which there are more teeth formed and forming than at any other time of life—forty-four in the whole."

266. (Slide, Div. 9.) "The teeth from one side of both jaws of a child eight or nine years old, principally to show the progress of the second set and the beginning and decay of the first set." O. C. 5864.

The first deciduous incisor of the lower jaw has been shed, and the crowns of the second permanent molars have been formed. The fangs of the first true molars are more lengthened, and those of the milk-molars more absorbed.

These teeth form the subjects of fig. 1, pl. xi.; and, according to Hunter's own showing, a greater number of formed and forming teeth coexist in the jaws of a child at the age here exemplified than at that characterized by the teeth in No. 265. As the crowns of the second true molars are always more or less calcified before any of the deciduous incisors are shed, the number of "formed and forming" teeth in the jaws at such period (commonly from seven to eight years of age) is forty-eight, viz. twenty deciduous teeth, twenty permanent successors, and eight superadded true molars.

267. (Slide, Div. 10.) "The teeth from one side of both jaws of a youth about eleven or twelve years old, showing the further progress of the one set towards perfection, and of the other towards decay." O. C. 5865.

The deciduous incisors and canines have been shed, and the permanent ones have cut the gum. The fang of the canine is not yet complete. The second incisors have not been preserved in this series. The first upper premolar has come into place, and has pushed out its predecessor; the first lower milk-molar and the second in both jaws remain, with their fangs much absorbed. Only the base of the fangs of the premolars is formed; the first

true molars have the fangs nearly complete; the enamel seems to have been dissolved away from the summit of the crown by an acid. The crown of the second true molar is complete; that of the third, or "dens sapientiæ," is only beginning to be calcified. The above teeth form the subjects of fig. 2, pl. xi. *op. cit.*

268. (Slide, Div. 11.) The teeth from one side of both jaws of a youth about fourteen years of age. O. C. 5866.

The permanent incisors and canines are in place; but the deciduous molars have not been shed: their fangs are much absorbed, and those of their successors are half-formed; the fangs of the second true molar are in a similar state; and the crown of the third true molar is more advanced, especially in upper jaw.

269. (Slide, Div. 12.) The teeth from one side of both jaws of a youth about eighteen years of age. O. C. 5867.

The premolars or bicuspids are complete, and have pushed out the milk-molars, all the deciduous series being now shed. The fangs of the second true molar are complete in the lower jaw, but not in the upper jaw. The third true molar shows a corresponding advance of development in the lower jaw.

270. (Slide, Div. 13.) The calcified summits of the crowns of the deciduous teeth (viz. two incisors, canine, and two molars) "from one side of both jaws of a fœtus of seven or eight months, showing the progress of ossification;" this is greatest in the first incisor, and decreases to the last molar. O. C. 5868.

The specimens are the subjects of fig. 4, pl. ix. *op. cit.*

271. (Slide, Div. 14.) The calcified portions of the crowns of the deciduous teeth, from one side of both jaws, of a fœtus of the ninth month. (Fig. 5, pl. ix. *op. cit.*) O. C. 5869.

272. (Slide, Div. 15.) The deciduous mid-incisors, canines, and molars, with the calcified summits of the crowns of the permanent second incisors and first molars, from one side of both jaws of a child eight or nine months old. O. C. 5870.

These specimens are included in fig. 6, pl. ix. *op. cit.*, of the entire series, which are described as "the five temporary teeth in a more advanced state, with the first adult grinder.

The adult incisors and one cuspidatus are also begun to be formed;" but, by an error of the press, "years" is given for "months" in the description of the plate. In the text the specimens are rightly ascribed to an infant of eight or nine months.

273. (Slide, Div. 16.) The moieties of longitudinally bisected deciduous and permanent incisors at four stages of their development, showing "the gradual growth of the body, fangs, and cavity;" the lower row is of the permanent set. (Fig. 2, *a*, *b*, *c*, *d*, pl. xiii. *op. cit.*) O. C. 5871.

274. (Slide, Div. 17.) The moieties of longitudinally bisected deciduous and permanent molars at three stages of growth. The pulp-cavity is relatively larger in the completed deciduous than in the completed permanent molar. (Fig. 2, *e*, *f*, *g*, pl. xiii. *op. cit.*) O. C. 5872.

275. (Slide, Div. 18.) Eight specimens of permanent incisors at different stages of development. O. C. 5873.

These are the subjects of fig. 8, pl. xiii. *op. cit.*, where they are described as "showing the gradual growth of a single tooth, from its first formation nearly, to its being almost complete;" some of the specimens, however, are of the first incisor, some of the upper, some of the lower incisors.

276. (Slide, Div. 19.) Six specimens of the first true molar of the lower jaw. O. C. 5874.

"They show the formation of the cavity and fangs of the molares of the lower jaw.

"(*a*.) Shows the common cavity in the body of the tooth.

"(*b*.) Shows the cavity still deeper.

"(*c*.) Shows the bony arch thrown over the mouth of the cavity, and dividing that into two openings, which give origin to the two fangs.

"(*d*, *e*, *f*.) Show the progress of these fangs." *Op. cit.* pl. xiii. fig. 1, A, *a*, B, C, D, E.

277. (Slide, Div. 20.) Five specimens of the first true molar of the upper jaw, similarly displayed. O. C. 5875.

"(*g*.) Shows the common cavity of the tooth.

"(*h*.) Shows the slight tucking-in of the mouth of the cavity at three different points, from which three ossifications shoot.

"(*i.*) Shows these ossifications, and the beginning of three fangs.

"(*k*, *l.*) Show the gradual growth of these fangs." *Op. cit.* pl. xiii. fig. 1, A, *a*, F, G, H, I, K*.

### *Abnormal Conditions of the Teeth.*

These might more logically be arranged in the Teratological Series, but are retained here chiefly for considerations of convenience.

In the collection of skulls illustrating the special osteology of the different races of Man there are many examples of deviation from the normal condition of the teeth, which are noted in the description of the respective specimens.

278. A skull, said to be that of a Negress, in which the crown of the right upper canine projects upwards, forwards, and inwards into the right nostril. O. C. 5900. *Hunterian.*

279. The cranium of a young person, in which the right upper canine is obliquely embedded in the palate, projecting behind the second incisor. O. C. 5748.

A milk-canine appears to have been retained, judging by the alveolus. The basilar suture is not closed. The permanent teeth are all in place, except the third molars.

*Hunterian.*

280. The upper and lower jaws of an adult Englishman, in which the crown of the right upper canine is almost completely embedded in the palate, its apex, directed forwards and inwards, being situated immediately behind the first incisor. A space is left between the second incisor and the first premolar; but there is no evidence of the existence of a persistent milk-tooth, as in many of the similar specimens. The teeth of the left side are normal. In the lower jaw the incisors are crowded together, and the right lateral incisor is placed altogether behind the others and is rotated on its axis. O. C. 5739. *Purchased.*

281. The right maxilla of an adult, in which the canine occupies the normal situation and direction, but is only partially erupted, less than half the crown projecting beyond the alveolar margin.

* The foregoing descriptions of the Hunterian specimens illustrating human dentition are reprinted, with slight verbal corrections, from the Catalogue of 1853.

282. The right maxilla of a person not quite adult, and probably female, with the canine placed very obliquely and scarcely projecting above the level of the alveolus. The apex of its crown is directed inwards, occupying the place of the second incisor, which would appear to have been absent. The presence of a retained milk-canine is indicated by the alveolus. The crown of the third molar is completely calcified, but still retained within the alveolus.

The five following specimens belonged to the late Mr. Walter Jones, of Worcester, and are described by Mr. James A. Salter in 'Guy's Hospital Reports,' 3rd ser. vol. v. (1859).

283. The superior maxillæ, in which the left canine is embedded in the palate behind the incisor teeth, with its apex close to the incisive foramen. *Purchased*, 1876.

284. The upper maxillæ and set of upper permanent teeth, with the left canine completely concealed in the palate behind the incisors, and the milk-canine permanently retained. *Purchased*, 1876.

285. The superior maxillæ of an old person, with both canines directed almost horizontally inwards and forwards within the alveolar arch, so that their apices meet at the middle line. With the exception of two molars and a premolar on the left side, and one molar on the right, there were no other teeth in the jaw at the time of the person's decease. The crowns of the canines occupy all the space in which the incisors are usually implanted. *Purchased*, 1876.

286. The anterior portion of a lower jaw of an adult, in which the right milk-canine is permanently retained in its place, its successor lying obliquely in the alveolus, the crown being situated in front of the roots of the two right incisors. *Purchased*, 1876.

287. The lower jaw of an adult, in which the posterior premolars of both sides are permanently retained in the alveolus, and placed obliquely, with the crowns directed forwards against the roots of the teeth in front. There are vacant spaces in the jaws, where the crowns of the teeth ought to be. The third right molar appears not to have been developed. *Purchased*, 1876.

## III. SPECIAL OSTEOLOGY OF MAN,

### or Illustrations of the Osteological Characters of the various Races of Mankind.

In consequence of the uncertainty which still prevails with regard to the classification and mutual relations of the races of Man, it has been thought best, in this Catalogue, to adhere to an almost purely geographical arrangement.

### 1. *EUROPE.*

#### A. The British Isles.

##### a. *England.*

##### *a. Ancient British, or presumably ancient, though of uncertain date.*

288. The greater part of the skeleton of an adult male, found beneath a bed of peat, which lay below a sand hill on the sea-coast near Leasowe Castle, in Cheshire.

The skeleton, and the circumstances under which it was discovered, are described by Mr. Busk in the 'Transactions of the Ethnological Society of London,' vol. iv. p. 101.

The teeth are much worn. The coronal and sagittal sutures are completely obliterated, the lambdoidal nearly so.

Clavicle 143, humerus 340, radius 255, femur 462.

Cranium: C. 545, L. 190, B. 148, Bi. 779.

*Presented by General the Hon. Sir Edward Cust,* 1864.

289. A calvaria, found at Muskham, in the valley of the Trent: ♂.

See Huxley, "Notes upon Human Remains from the Valley of the Trent," in 'The Geologist' for June 1862. The skull is also described and figured in Laing and Huxley's 'Prehistoric Remains of Caithness,' 1866, p. 120, figs. 48–51.

C. 507, L. 178, B. 138, Bi. 775, H. 135, Hi. 758, Ca. 1300.

The plane of the foramen magnum is remarkably oblique, the basilar angle (Broca) being 42°.

*Presented by Francis Drake, Esq.,* 1867.

290. A cranium, found in the peat beneath the roots of an old tree, while making a ditch at Ridlington, Norfolk.

This specimen is mentioned in the sketch of the Geology of

Norfolk in White's 'Gazetteer,' and (with the two following) was formerly in the possession of Mr. J. Gunn.

Metopic.

C. 518, L. 187, B. 133, Bi. 711, H. 140, Hi. 749, BN. 99, BA. 92, Ai. 929, Nh. 49, Nw. 22, Ni. 449, Ow. 39, Oh. 30, Oi. 769, Ca. 1500.

*Presented by George Busk, Esq.*, 1865.

291. A cranium, found in digging a ditch near Wayford Bridge, in Norfolk, at a depth of four feet, in peat: ♀?

C. 503, L. 188, B. 126, Bi. 670, H. 125, Hi. 665, BN. 97, BA. 95, Ai. 979, Nh. 47, Nw. 22, Ni. 468, Ow. 37, Oh. 32, Oi. 865, Ca. 1200.

*Presented by George Busk, Esq.*, 1868.

292. A cranium from Hickling, Norfolk.

"Found, with the entire skeleton, at a depth of about eight feet, in clearing out a drain-ditch; the skeleton lay in a slanting semivertical position:" ♂.

C. 518, L. 182, B. 138, Bi. 758, H. 134, Hi. 736, BN. 102, BA. 97, Ai. 951, Nh. 49, Nw. 24, Ni. 490, Ow. 40, Oh. 33, Oi. 825, Ca. 1500.

*Presented by George Busk, Esq.*, 1868.

293. The cranium of a young person, from a peat-bog in Northamptonshire, wanting the greater part of the base.

The basilar suture is not closed; and the posterior molars are not in place.

C. 515, L. 178, B. 144, Bi. 809.

*Presented by George Busk, Esq.*, 1868.

294. The frontal and parietal bones of a cranium, from a peat-bog in Northamptonshire.

"From J. Prestwich, Esq., Dec. 1866."

*Presented by George Busk, Esq.*, 1868.

295. A calvaria, found at a depth of sixteen feet below the surface, Southern Outfall Works, Thames.

The deposit in which it was found is thus described:—Vegetable soil 1′ 2″, yellow clay 3′ 6″, peat 2′ 5″, blue clay 8′ 0″, silt 3′ 0″ (in this the skull was found), peat 0′ 9″, peat and clay mixed 0′ 5″, peat 1′ 0″, peat and clay 0′ 7″, running sand 1′ 3″, Thames ballast 30′ 0″.

L. 182, B. 144, Bi. 791.

*Presented by George Busk, Esq.*, 1865.

296. A calvaria, found in 1809, at a depth of thirty-six feet, in Carnon Stream Work, Cornwall.

The frontal suture is persistent.

C. 523, L. 183, B. 137, Bi. 749.

297. An ancient British skull, found, in 1852, in a barrow at Codford, near Heytesbury, Wilts: ♂.

Described and figured in Davis and Thurnam's 'Crania Britannica,' no. xxix.

C. 503, L. 170, B. 145, Bi. 853, H. 130, Hi. 765, BN. 95, BA. 90, Ai. 947, Nh. 48, Nw. 22, Ni. 458, Ow. 41, Oh. 31, Oi. 756, Ca. 1300.

*Presented by J. Y. Akerman, Esq.*, 1857.

### *β. Roman and Romano-British.*

Owing to the impossibility of distinguishing these in many cases, the remains of the Roman invaders of Britain are classed with the inhabitants of the island who lived under their rule.

298. The greater part of the skeleton of a man, disinterred by the donor at Frilford, near Abingdon, Berks, May 27th, 1870.

The following note from Professor Rolleston accompanied the specimen:—"Found in a grave running from N.N.W. to S.S.E., about 2′ 4″ deep. Abundant charcoal was found in the grave, close to the bones; large stones were also close to the skeleton. Flints and shards were found in the grave. The interment was such a one as those described by me in the 'Archæologia,' vol. xlii.* (p. 6 of separate issue of Memoir), as 'Roman or Romano-British Interments, without leaden but in most cases probably with wooden coffins, and in semioriented graves.' The skull is one of the type very frequent in Romano-British times, and supposed by me (*l. c.* p. 38) to belong to the 'Cimbric' type of Retzius."

Clavicle 155; humerus, *r.* 322, *l.* 312; radius 239; femur, *r.* 441, *l.* 433; tibia 354.

The sagittal suture is completely, and the coronal and lambdoidal sutures are in great part obliterated.

Cranium: C. 552, L. 196, B. 145, Bi. 740, H. 132, Hi. 673,

* "Researches and Excavations carried on in an Ancient Cemetery at Frilford, near Abingdon, Berks, in the years 1867-68," Archæologia, vol. xlii. p. 417.

BN. 102, BA. 96, Ai. 941, Nh. 48, Nw. 22, Ni. 458, Oh. 40, Ow. 34, Oi. 850, Ca. 1700.

*Presented by Professor Rolleston, M.D.*, 1875.

299. The greater part of the skeleton of a woman, disinterred by the donor at Frilford, Jan. 20th, 1869.

"Taken from a grave 35" deep and running from N.N.W. to S.S.E. by S.E. Nails were found in the neighbourhood of the body, which was in all probability that of a Romano-British woman."

Clavicle 132, humerus 283, radius 213, femur 408.

Cranium: C. 512, L. 175, B. 145, Bi. 829, H. 120, Hi. 686, Ca. 1390.

*Presented by Professor Rolleston, M.D.*, 1875.

300. A skull, taken, in 1857, from a tumular cemetery on White-Horse Hill, Berkshire: ♂.

For a description of the cemetery in which it was found, and reasons for supposing that it belonged to a late period of the Roman occupation (fourth or fifth century), see Davis and Thurnam's 'Crania Britannica,' part li.

All the calvarial sutures are united.

C. 548, L. 193, B. 145, Bi. 751, H. 131, Hi. 679, BN. 103, BA. 93, Ai. 903, Nh. 51, Nw. 22, Ni. 431, Ow. 40, Oh. 35, Oi. 875, Ca. 1575.

*Presented by Dr. J. Thurnam*, 1858.

301. An adult metopic skull, from the same cemetery: ♀.

C. 492, L. 172, B. 129, Bi. 750, H. 120, Hi. 698, BN. 91, BA. 85, Ai. 934, Nh. 47, Nw. 24, Ni. 511, Ow. 36, Oh. 32, Oi. 889.

*Presented by Dr. J. Thurnam*, 1858.

302. The skull of a young person, from the same cemetery: ♀?

The basilar suture is not consolidated. All the permanent teeth are in place, except the posterior molars.

C. 515, L. 184, B. 141, Bi. 766, H. 130, Hi. 707, Ca. 1220.

*Presented by Dr. J. Thurnam*, 1858.

303. A skull, presented as "Skull of an Ancient Roman, Blandford, Dorset:" ♂.

There is a circular exostosis on the right parietal bone.

C. 500, L. 178, B. 133, Bi. 748, H. 126, Hi. 708, BN. 100, BA. 97, Ai. 97, Nh. 50, Nw. 25, Ni. 500, Oh. 41, Ow. 34, Oi. 829, Ca. 1290.

*Presented by J. Y. Akerman, Esq.*

304. A mutilated cranium, from the same place: ♂.

C. 525, L. 185, B. 142, Bi. 768, H. 124, Hi. 670.

*Presented by J. Y. Akerman, Esq.*

305. A mutilated cranium, from the same place.

C. 507, L. 179, B. 132, Bi. 737.

*Presented by J. Y. Akerman, Esq.*

306. A metopic cranium, marked "From the camp at Spettisbury, near Blandford, Dorset, 1857:" ♂.

C. 543, L. 193, B. 149, Bi. 772, H. 142, Hi. 736, BN. 98, BA. 95, Ai. 969, Nh. 54, Nw. 26, Ni. 481, Ow. 40, Oh. 34, Oi. 850, Ca. 1790.

307. A cranium, with the same inscription: ♂?

Very large, probably hydrocephalic, the cranial bones being disproportionate to those of the face.

C. 558, L. 196, B. 156, Bi. 796, H. 136, Hi. 689, BN. 110, BA. 104, Ai. 945, Nh. 50, Nw. 23, Ni. 460, Ow. 41, Oh. 33, Oi. 805, Ca. 1730.

308. A skull, said to be that of "a Roman, from Jordans, near Weymouth:" ♂.

It has a very large epactal bone.

C. 528, L. 184, B. 147, Bi. 799, H. 139, Hi. 755, BN. 99, BA. 93, Ai. 939, Nh. 55, Nw. 25, Ni. 455, Ow. 38, Oh. 34, Oi. 895, Ca. 1600.

*Presented by J. Macmeikan, Esq.*, 1860.

The following seven specimens were sent to the Museum in 1861 as "Roman skulls dug up in Cannon Street, in the city of London, 1861." They present a general resemblance, being all long, low, and rather broad; having the glabella, supraorbital prominences, mastoid process, and muscular ridges little developed, the facial bones small, and the orbits large and high.

309. A skull, dug up in Cannon Street in 1861: ♂.

C. 538, L. 188, B. 145, Bi. 771, H. 125, Hi. 665, BN. 100, BA. 97, Ai. 970, Nh. 55, Nw. 25, Ni. 455, Ow. 40, Oh. 35, Oi. 875, Ca. 1475.

310. A skull, dug up in Cannon Street in 1861: ♂.

C. 525, L. 183, B. 140, Bi. 765, H. 120, Hi. 656, BN. 95, BA. 90, Ai. 947, Nh. 52, Nw. 26, Ni. 500, Ow. 38, Oh. 38, Oi. 1000, Ca. 1370.

311. A skull, dug up in Cannon Street in 1861: ♂?

C. 525, L. 190, B. 138, Bi. 726, H. 123, Hi. 647, BN. 97, BA. 94, Ai. 969, Nh. 47, Nw. 23, Ni. 489, Ow. 36, Oh. 33, Oi. 917, Ca. 1380.

312. A cranium, dug up in Cannon Street in 1861: ♂.

C. 503, L. 177, B. 135, Bi. 763, H. 132, Hi. 746, BN. 101, BA. 92, Ai. 911, Nh. 53, Nw. 23, Ni. 434, Ow. 39, Oh. 34, Oi. 872, Ca. 1370.

313. A cranium, dug up in Cannon Street in 1861: ♂.

C. 528, L. 188, B. 143, Bi. 761, H. 132, Hi. 702, BN. 96, BA. 92, Ai. 958, Nh. 48, Nw. 22, Ni. 458, Ow. 37, Oh. 32, Oi. 865, Ca. 1530.

314. A cranium, dug up in Cannon Street in 1861: ♀.

C. 495, L. 172, B. 137, Bi. 797, H. 124, Hi. 721, BN. 88, BA. 78, Ai. 886, Nh. 46, Nw. 20, Ni. 435, Ow. 35, Oh. 32, Oi. 914, Ca. 1270.

315. A cranium, dug up in Cannon Street in 1861: ♀.

C. 492, L. 172, B. 127, Bi. 738, H. 121, Hi. 703, BN. 95, BA. 93, Ai. 979, Nh. 50, Nw. 25, Ni. 500, Ow. 39, Oh. 33, Oi. 846, Ca. 1190.

### γ. *Anglo-Saxon Period.*

316. A skull, found in a tumulary cemetery near York, referred by the donor to the early Saxon Christians of the seventh or eighth century: ♂. O. C. 5712.

See Dr. Thurnam's Memoir, communicated to the Yorkshire Philosophical Society, of which an abstract will be found in O. C. p. 881.

C. 525, L. 188, B. 148, Bi. 787, H. 133, Hi. 707, BN. 99, BA. 96, Ai. 970, Nh. 51, Nw. 23, Ni. 451, Ow. 38, Oh. 35, Oi. 921, Ca. 1500.

*Presented by Dr. John Thurnam*, 1848.

317. The skull of an Anglo-Saxon, discovered in 1858 in a tumulus on Wye Hill, on the left of the high road from Wye to Dover, with an iron spear-head and a small knife.

It is figured and described in Davis and Thurnam's 'Crania Britannica,' pl. xlvi. The right lower canine is retained within the alveolus.

C. 540, L. 196, B. 144, Bi. 735, H. 146, Hi. 745.

*Presented by C. Roach Smith, Esq.*

318. A skull, found with about fifty others, in 1853, in an Anglo-Saxon cemetery at Linton Heath, Cambridgeshire: ♂.

Figured and described in 'Crania Britannica,' pl. xlix. Many of the others found with it were in such an extremely brittle condition that they crumbled on being touched.

C. 553, L. 192, B. 155, Bi. 807, H. 142, Hi. 740, BN. 102, BA. 95, Ai. 931, Nh. 47, Nw. 23, Ni. 489, Ow. 39, Oh. 33, Oi. 846, Ca. 1780.

*Presented by the Hon. Richard C. Neville,* 1853.

319. A skull, probably from the same cemetery: ♀.

C. 478, L. 170, B. 127, Bi. 747, H. 124, Hi. 729, BN. 94, BA. 89, Ai. 947, Nh. 46, Nw. 23, Ni. 500, Ow. 39, Oh. 35, Oi. 897.

*Presented by the Hon. Richard C. Neville.*

320. A mutilated cranium, having a remarkably low and narrow forehead, a mandible, and a left femur and tibia.

These are described by the donor as "Bones of a Saxon, from the cemetery at Bartlow, in Essex, found in February 1853. This was the body of a warrior; he lay on his shield, of which the iron boss was found under the skull, and an iron knife was at his side. Part of the frontal bone of a child lay near the feet."

*Presented by the Hon. Richard C. Neville.*

321. A skull, with the cervical vertebræ (wanting the atlas), found in 1857 in an Anglo-Saxon cemetery at Brighthampton, near Witney, Oxon: ♀.

See 'Archæologia,' vol. xxxvii. p. 391, and 'Crania Britannica,' where a skull from the same cemetery is described and figured (pl. xlviii.).

C. 528, L. 190, B. 143, Bi. 753, H. 129, Hi. 679, BN. 95, BA. 96, Ai. 1011, Nh. 47, Nw. 22, Ni. 468, Ow. 37, Oh. 31, Oi. 838.

*Presented by J. Y. Akerman, Esq.*

322. A skull, with the cervical vertebræ preserved, from the same cemetery: ♀?

C. 504, L. 175, B. 142, Bi. 811, Nh. 50, Nw. 22, Ni. 440, Ow. 37, Oh. 36, Oi. 973.

*Presented by J. Y. Akerman, Esq.*

323. A skull, showing considerable posthumous distortion, found in 1875 in a Saxon cemetery at Bishopstone, near Aylesbury: ♀.

*Presented by the Rev. Charles Lowndes*, 1875.

324. A mutilated calvaria, from the same locality: ♂.

C. 545, L. 195, B. 145, Bi. 744.

*Presented by the Rev. Charles Lowndes*, 1877.

### δ. *Of Uncertain Date, or Modern.*

325. A mutilated calvaria, found in the chalk at Lewisham, showing signs of posthumous distortion.

*Presented by George Busk, Esq.*, 1865.

326. A skull, found in digging a drain near Whitehall Stairs, May 23rd, 1823: ♂. O. C. 5713.

There were two other skulls and many loose bones found in the same spot.

C. 515, L. 182, B. 140, Bi. 769, H. 130, Hi. 714, BN. 102, BA. 99, Ai. 971, Nh. 54, Nw. 22, Ni. 407, Ow. 37, Oh. 32, Oi. 865, Ca. 1410.

*Presented by William Lynn, Esq.*, 1823.

327. A skull, dug up near St. Michael's Church, St. Albans: ♂.

It has two supernumerary upper incisor teeth, placed behind the others.

C. 543, L. 193, B. 145, Bi. 751, H. 136, Hi. 705, BN. 102, BA. 108, Ai. 1059, Nh. 58, Nw. 22, Ni. 379, Ow. 39, Oh. 36, Oi. 923, Ca. 1600.

*Presented by the Rev. John G. Hale*, 1860.

328. A skull, found in 1878, with a number of others, three feet below the surface, in a field adjoining Coldham Common, Cambridge.

The basilar suture is not completely consolidated, and the third molars are not yet in place. It is remarkably low in proportion to its length; in conformity with this condition, the ascending ramus of the mandible has little height, as was the case with several others from the same locality.

C. 520, L. 186, B. 140, Bi. 753, H. 116, Hi. 624, BN. 101, BA. 95, Ai. 941, Nh. 50, Nw. 25, Ni. 500, Ow. 37, Oh. 34, Oi. 919.

*Presented by E. T. Newton, Esq.*, 1878.

329. The skull of an English sailor, ♂.

It has a remarkably low and retreating frontal, and a very depressed bregmatic region.

C. 540, L. 191, B. 143, Bi. 749, H. 123, Hi. 644, BN. 102, BA. 103, Ai. 1010, Nh. 54, Nw. 25, Ni. 463, Ow. 40, Oh. 35, Oi. 875, Ca. 1460.

*Presented by George Busk, Esq.*, 1869.

330. The skull of an Englishman aged 54.

The upper part of the cranium is unsymmetrically developed, being prominent on the right and flattened on the left side.

C. 545, L. 195, B. 142, Bi. 728, H. 145, Hi. 744, BN. 103, BA. 96, Ai. 932, Nh. 52, Nw. 25, Ni. 482, Ow. 41, Oh. 36, Oi. 878, Ca. 1730.

*Prepared in* 1864.

331. The skull of an Englishman about 20 years of age.

The basilar suture is closed; but the third molars are not fully in place, that of the right side of the lower jaw being still within the alveolus.

C. 507, L. 179, B. 140, Bi. 782, H. 135, Hi. 755, BN. 98, BA. 97, Ai. 990, Nh. 46, Nw. 21, Ni. 457, Ow. 36, Oh. 31, Oi. 861, Ca. 1425.

*Prepared in* 1869.

332. The skull of an Englishwoman aged 27.

This and the next exhibit very well the characters of the feminine skull, when contrasted with the preceding specimens.

C. 512, L. 180, B. 140, Bi. 778, H. 134, Hi. 774, BN. 97, BA. 94, Ai. 969, Nh. 44, Nw. 21, Ni. 477, Ow. 34, Oh. 31, Oi. 912, Ca. 1410.

The pelvis of the same person is No. 161.

*Prepared in* 1875.

333. The skull of an Englishwoman aged 27.

C. 485, L. 173, B. 131, Bi. 757, H. 121, Hi. 699, BN. 87, BA. 82, Ai. 943, Nh. 50, Nw. 22, Ni. 440, Ow. 36, Oh. 33, Oi. 917, Ca. 1170.

The stylo-hyals, not yet united by bone to the tympano-hyal processes, are preserved.

*Prepared in* 1870.

334. The skull of an Englishwoman aged 70.

But one tooth remains, the right lower canine. The calvarial sutures are all partially consolidated.

C. 508, L. 178, B. 138, Bi. 775, H. 126, Hi. 708, BN. 96, Nh. 49, Nw. 20, Ni. 408, Ow. 35, Oh. 36, Oi. 1029, Ca. 1200.

*Prepared in* 1877.

335. The skull of an Englishman aged 61.

Charles Nichol, formerly a clerk, and subsequently a comic lecturer, a man of fair education and considerable dramatic and musical talent. He died in June 1877, having in his will left his head to the Museum.

Consolidation has commenced at the lower extremities of the coronal, the posterior end of the sagittal, and the upper part of the lambdoidal sutures.

C. 516, L. 179, B. 140, Bi. 782, H. 135, Hi. 755, BN. 98, BA. 87, Ai. 888, Nh. 52, Nw. 21, Ni. 404, Ow. 38, Oh. 37, Oi. 974, Ca. 1610.

*Bequeathed by Mr. C. Nichol,* 1877.

336. The articulated skeleton of an Englishman, said to be that of the notorious Jonathan Wilde, who was executed at Tyburn, 24th of May, 1725.

Jonathan Wilde, the infamous thief-catcher, who had for many years screened from justice such criminals as obeyed his orders, and caused numbers of others to be hanged, received sentence of death, at the Old Bailey, on May 15th, 1725, having been convicted of receiving stolen goods, and taking a reward of the owners for returning them without discovering the robbers.

The skeleton was accompanied by a coffin-plate, bearing the inscription—"Mr. Jonathan Wilde, Died May 24, 1725, In y$^{e}$ 42nd year of his age;" and a letter from the donor, dated "22 Burton Crescent, June 18th, 1847," stated that it had been in the possession of himself and his predecessors for upwards of fifty years.

Height 1632=5 feet 4·2 inches.

Clavicle 147, humerus 328, radius 236, femur 447, tibia 345.

Cranium: C. 520, L. 185, B. 134, Bi. 724, H. 135, Hi. 730, BN. 104, BA. 101, Ai. 971, Nh. 49, Nw. 24, Ni. 490, Ow. 42, Oh. 34, Oi. 910, Ca. 1425.

*Presented by Frederick Fowler, Esq.,* 1847.

337. The cranium of Eugene Aram, who was executed for murder at York in August 1759, and gibbeted in Knaresborough Forest.

Eugene Aram was born in Yorkshire about 1710, was well educated, and began life as a city clerk in London, but after-

wards set up a school at Knaresborough. In 1745 he conspired with two others to defraud certain of his neighbours of plate and goods; and the confederates meeting in St. Robert's Cave to divide their spoil, appear to have had a disagreement, which resulted in the murder of one of them, named Clark, whose body was buried in the cave. He was supposed to have absconded; but the accidental discovery of his skeleton in 1758, and the evidence of the other confederate, led to the conviction of Eugene Aram, who in the meanwhile had occupied the post of usher in a school at Lynn, in Norfolk. His defence at the trial was considered very remarkable for the ingenuity and erudition which it displayed.

The authenticity of the skull is thoroughly well attested, having been obtained from the gibbet by the grandfather of the donor, Dr. Hutchinson, a surgeon in practice at Knaresborough at the time of the execution (see letters, dated December 9th and 15th, 1869, Museum Letter-Book, vol. ii. pp. 38, 39); and its condition tends to confirm this history, as it has evidently never been macerated. The end of the right mastoid process has been cut off, probably in severing the head from the body. It was exhibited at the Meeting of the British Association at Newcastle, in 1838 (see Report of Transactions of Sections, p. 125).

The cranium is small, and almost feminine in appearance; but the mastoid processes are long, and the glabella well developed. There are two large symmetrical Wormian bones in the lambdoidal suture. The sagittal suture is partially obliterated. There is a considerable postcoronal depression.

C. 515, L. 185, B. 140, Bi. 757, H. 130, Hi. 703, BN. 102, BA. 99, Ai. 971, Nh. 53, Nw. 22, Ni. 415, Ow. 38, Oh. 34, Oi. 895, Ca. 1400.

*Presented by the Rev. John Walker, Bradwell Rectory, Great Yarmouth*, 1869.

338. The partially articulated skeleton of an Englishman aged 31, being that of John Thurtell, a London solicitor, executed at Hertford, January 9th, 1824, for the murder of Mr. Weare.

The body was removed to St. Bartholomew's Hospital for dissection; and the skeleton was preserved by Mr. Wormald, then Demonstrator of Anatomy.

The skull is massive and heavy, and has remarkably large mastoid processes, indicating great muscular development.

Clavicle 162, humerus 345, radius 248; femur, *r.* 491, *l.* 500; tibia, *r.* 403, *l.* 405.

Cranium: C. 535, L. 191, B. 146, Bi. 764, H. 143, Hi. 749, BN. 107, BA. 103, Ai. 963, Nh. 52, Nw. 24, Ni. 460, Ow. 39, Oh. 34, Oi. 872, Ca. 1640.

*Presented by Mrs. Wormald*, 1874.

### b. *Wales.*

339. A mutilated calvaria, from a remarkable tumulus at Porth-y-Ddarfarch (Towyn-y-Capel), Anglesea.

An account of the discovery of this and the two following specimens by the Hon. W. O. Stanley, entitled "Towyn-y-Capel and the ruined Chapel of St. Bride, on the West Coast of Holyhead Island, with notices of the curious interments there discovered," is published in the third volume of the 'Archæological Journal of the Archæological Institute,' 1846. The skull is figured and described by Professor Huxley in 'Prehistoric Remains of Caithness,' 1866.

C. 495, L. 179, B. 130, Bi. 726.

*Presented by Hon. W. O. Stanley*, 1854.

340. A still more imperfect calvaria, from the same tumulus.

C. 485, L. 171, B. 130, Bi. 760.

*Presented by Hon. W. O. Stanley*, 1854.

341. The frontal and facial portion of a skull, from the same tumulus. *Presented by Hon. W. O. Stanley*, 1854.

### c. *Scotland.*

342. A skull, found among the ruins of an ancient Culdee Monastery at St. Andrews, 1860: ♀.

C. 505, L. 173, B. 142, Bi. 821, H. 127, Hi. 734, BN. 99, BA. 98, Ai. 990, Nh. 43, Nw. 20, Ni. 465, Ow. 40, Oh. 31, Oi. 775, Ca. 1400.

Crania found at the same place and time are described in "Observations upon Sixteen Ancient Human Skulls found in Excavations made on the Kirkhill, St. Andrews, 1860," by Dr. J. Barnard Davis, Edin. New Phil. Journ. vol. xiv. (1861) p. 191.

*Presented by George Busk, Esq.*, 1866.

343. A cranium, from the same place: ♀.

The teeth are much worn. The lower part of the coronal and hinder part of the sagittal sutures are consolidated.

C. 490, L. 173, B. 134, Bi. 775, H. 122, Hi. 705, BN. 90,

BA. 89, Ai. 989, Nh. 50, Nw. 26, Ni. 520, Ow. 38, Oh. 34, Oi. 895, Ca. 1160.

*Presented by George Busk, Esq.*, 1866.

344. A mutilated cranium, from the same place.

Slightly platybasic. The basilar suture is still open.

C. 530, L. 187, B. 140, Bi. 749, H. 118, Hi. 631, Ca. 1325.

*Presented by George Busk, Esq.*, 1866.

345 & 345 A. A remarkably depressed or tapeinocephalic cranium, and a femur, supposed to belong to the same individual : ♂.

These were purchased by the donor at the sale by Messrs. Sotheby and Co., on March 22nd, 1865, of "a collection of Fossils and Minerals &c. formed during the last century by the Hon. Archibald Fraser, of Lovat," and described in the catalogue as "Skull and thigh-bone of Lord Darnley."

The internal evidence afforded by both bones conclusively negatives their authenticity. Darnley, at the time of his death in 1567, was about 22 years old; and the bones are those of a man considerably more advanced in life and of great muscular development. The almost complete absence of frontal elevation, which is one of the most striking features in the skull, finds no corroboration in any of the known portraits and descriptions of the young Earl; and the femur could not be that of a person invariably described as "tall," or "long," as, calculating at the usual ratio of 27·5 to 100, it would give a height of only 5 feet 2·2 inches.

C. 533, L. 185, B. 145, Bi. 784, H. 119, Hi. 643, BN. 106, BA. 98, Ai. 925, Nh. 55, Nw. 23, Ni. 418, Ow. 40, Oh. 40, Oi. 1000, Ca. 1350.

Length of femur 434.

*Presented by J. W. Belt, Esq.*, 1869.

346. The skull of a man, described as that of "a Highlander or Celtic Scot." O. C. 5731.

C. 513, L. 178, B. 142, Bi. 798, H. 137, Hi. 770, BN. 94, BA. 95, Ai. 1011, Nh. 46, Nw. 24, Ni. 522, Ow. 36, Oh. 29, Oi. 806, Ca. 1520.

*From the Collection of George Langstaff, Esq. Purchased*, 1835.

d. *Ireland.*

347. A cast of a mutilated cranium, from the bed of the river Nore, at Borris, in Queen's County: ♂.

Described and figured by Professor Huxley in 'Prehistoric Remains of Caithness,' 1866, figs. 60 & 61.

C. 562, L. 199, B. 147, Bi. 744, H. 138, Hi. 693.

*Presented by Professor Huxley*, 1866.

348. The cast of a cranium found with the above.

C. 538, L. 191, B. 142, Bi. 743.

*Presented by Professor Huxley*, 1866.

349. The cast of a mutilated cranium from the bed of the Blackwater River, in Armagh, "strikingly similar to the Muskham cranium (No. 289) in its general characters."

C. 520, L. 181, B. 142, Bi. 785.

*Presented by Professor Huxley*, 1866.

350. The cast of another cranium from the same locality.

C. 542, L. 186, B. 153, Bi. 823.

*Presented by Professor Huxley*, 1866.

B. France.

a. *Ancient.*

The following (Nos. 351 to 358 inclusive) are casts from remains of prehistoric inhabitants of Périgord, discovered in 1868 by M. Lartet at Cro-Magnon, Vallée de la Vezère, described by Broca and Pruner Bey in 'Reliquiæ Aquitanicæ' and 'Bull. Soc. d'Anthrop. de Paris,' 2e sér. t. iii. (1868), and by Quatrefages and Hamy in 'Crania Ethnica.' The originals are in the Muséum d'Histoire Naturelle at Paris.

351. Cast of skull, with humerus, ulna, carinated femur, platycnemic tibia, and fibula. Marked "No. 1, ♂."

Figured in Quatrefages and Hamy's 'Crania Ethnica,' plates iii., iv., and v. Described at p. 45.

352. Cast of cranium, marked "No. 2, ♀."

'Crania Ethnica,' p. 81, fig 80 & 81.

353. Cast of calvaria, with portion of lower jaw and tibia, marked "No. 3 ♂."

'Crania Ethnica,' p. 50.

*Presented by the "Professeurs Administrateurs du Musée d'Histoire Naturelle à Paris," per M. de Quatrefages*, 1873.

354. The cast of the right ramus of a mandible found by M. Boucher de Perthes in the gravel at Moulin-Quignon, near Abbeville, March 28, 1863.

See "An Account of the Proceedings of the late Conference held in France to inquire into the circumstances attending the asserted discovery of a Human Jaw in the gravel at Moulin-Quignon, near Abbeville; including the Procès-Verbaux of the Sittings of the Conference, with notes thereon," by H. Falconer, G. Busk, and W. B. Carpenter, 'Natural History Review,' July 1863, p. 423. Also Dr. H. Falconer "On the Evidence in the case of the controverted Human Jaw and Flint Implements at Moulin-Quignon," 'Palæontological Memoirs,' vol. ii. p. 601 (1868).

*Presented by the "Professeurs Administrateurs du Musée d'Histoire Naturelle à Paris," per M. de Quatrefages*, 1873.

355. The cast of a portion of a mandible found at Moulin-Quignon in 1864. *Presented by the same*, 1873.

356. A cranium from a Gallo-Roman cemetery at St. Acheul, near Amiens, in the brick-earth above the flint-bearing beds of the Somme valley: ♂.

In each orbit is a coin of the Emperor Magnentius, struck at Ambianum (Amiens). The adjacent bone is deeply stained with copper. Coffin-nails and angle-irons were found with the human remains in the cemetery, some of which are deposited in a drawer in the Museum.

C. 543, L. 194, B. 142, Bi. 732, H. 138, Hi. 711, BN. 107, BA. 100, Ai. 935, Nh. 56, Nw. 26, Ni. 464, Ow. 35, Oh. 34, Oi. 971, Ca. 1650.

*Presented by Henry Christy, Esq.*, 1865.

357. A calvaria from the same cemetery: ♂.

C. 550, L. 193, B. 145, Bi. 751, H. 138, Hi. 715, Ca. 1625.

*Presented by Henry Christy, Esq.*, 1865.

358. A skull obtained from a Gallo-Roman cemetery at St. Acheul, by Sir John Lubbock, Bart.: ♂.

C. 508, L. 181, B. 134, Bi. 740, H. 126, Hi. 696, BN. 97, BA. 97, Ai. 1000, Nh. 49, Nw. 25, Ni. 510, Ow. 37, Oh. 29, Oi. 784, Ca. 1260.

*Presented by George Busk, Esq.*, 1868.

b. *Modern.*

"The following twelve specimens (Nos. 359 to 370 inclusive) were extracted from the Catacombs at Paris, and are therefore probably French. In the first six the frontal suture is persistent *; and in most of them the high, broad, rather short, subspherical form of the cranium prevails."—O. C. p. 883.

359. A metopic cranium. O. C. 5719. ♂.

C. 530, L. 180, B. 150, Bi. 833, BN. 95, BA. 95, Ai. 1000, Nh. 50, Nw. 30, Ni. 600, Ow. 40, Oh. 32, Oi. 800.

*Presented by Dr. W. E. Leach*, 1827.

360. A metopic cranium. O. C. 5720. ♂.

The outer alveolar plate has been removed from the teeth in place, showing the great length of the root of the canine, and that the first premolar has its outer root double, while in the second it is single.

C. 523, L. 180, B. 146, Bi. 811, H. 135, Hi. 750, BN. 100, BA. 94, Ai. 940, Nh. 54, Nw. 24, Ni. 444, Ow. 43, Oh. 36, Oi. 837, Ca. 1500.

*Presented by Dr. Leach*, 1827.

361. A metopic cranium, wanting the occipital bone. O. C. 5721. ♂.

BN. 96, BA. 90, Ai. 938, Nh. 53, Nw. 24, Ni. 453, Ow. 37, Oh. 33, Oi. 892.

*Presented by Dr. Leach*, 1827.

362. A metopic cranium. O. C. 5722. ♀.

C. 493, L. 167, B. 145, Bi. 868, H. 122, Hi. 731, BN. 95, BA. 93, Ai. 979, Nh. 51, Nw. 22, Ni. 431, Ow. 35, Oh. 32, Oi. 914, Ca. 1385.

*Presented by Dr. Leach*, 1827.

363. A metopic cranium. O. C. 5723. ♀.

C. 520, L. 184, B. 136, Bi. 739, H. 127, Hi. 690, BN. 90, Nh. 52, Nw. 20, Ni. 386, Ow. 36, Oh. 35, Oi. 972, Ca. 1410.

*Presented by Dr. Leach*, 1827.

* These were probably selected on that account. In the edition of the Catalogue of 1831 the following passage occurs:—"It was a curious remark made by Dr. Leach, and others who have examined that immense collection of crania and other bones in the catacombs at Paris, that the number of adult skulls in which the frontal suture remained unobliterated was so considerable that, from a calculation made on the spot, he estimated the proportion to be at least one in eleven."

Regalia has observed 141 cases of metopism in 1545 Italian crania in the National Museum of Anthropology at Florence—almost exactly the same proportion as that mentioned above. (Archiv. per Antropologia, vol. viii. p. 465, 1878.)

364. A metopic cranium. O. C. 5724. ♂?

C. 500, L. 175, B. 137, Bi. 783, H. 126, Hi. 720, BN. 96, Nh. 52, Nw. 26, Ni. 500, Ow. 39, Oh. 35, Oi. 897, Ca. 1150.

*Presented by Dr. Leach*, 1827.

365. A cranium. O. C. 5725. ♂.

C. 518, L. 180, B. 147, Bi. 817, H. 140, Hi. 778, BN. 98, BA. 87, Ai. 888, Nh. 51, Nw. 21, Ni. 412, Ow. 37, Oh. 34, Oi. 919, Ca. 1650.

*Presented by Dr. Leach*, 1827.

366. A cranium. O. C. 5726. ♂?

C. 512, L. 178, B. 138, Bi. 775, H. 134, Hi. 753, BN. 92, Nh. 48, Nw. 23, Ni. 479, Oh. 35, Ow. 33, Oi. 943, Ca. 1450.

*Presented by Dr. Leach.*

367. A cranium. O. C. 5727.

C. 512, L. 185, B. 133, Bi. 719, H. 132, Hi. 714, BN. 104, BA. 98, Ai. 942, Nh. 50, Nw. 26, Ni. 520, Ow. 40, Oh. 30, Oi. 750, Ca. 1360.

*Presented by Dr. Leach*, 1827.

368. A cranium. O. C. 5728.

The basioccipital presents a median articular surface for the atlas, on the anterior border of the foramen magnum.

C. 515, L. 180, B. 142, Bi. 789, H. 129, Hi. 717, BN. 93, BA. 89, Ai. 957, Nh. 48, Nw. 23, Ni. 479, Ow. 38, Oh. 33, Oi. 868, Ca. 1375.

*Presented by Dr. Leach*, 1827.

369. A cranium. O. C. 5729.

C. 492, L. 179, B. 131, Bi. 732, H. 120, Hi. 670, BN. 96, BA. 93, Ai. 969, Nh. 45, Nw. 23, Ni. 511, Ow. 38, Oh. 31, Oi. 816, Ca. 1200.

*Presented by Dr. Leach*, 1827.

370. A cranium. O. C. 5730.

C. 487, L. 178, B. 130, Bi. 730, H. 123, Hi. 691, BN. 95, BA. 86, Ai. 905, Nh. 48, Nw. 20, Ni. 417, Ow. 37, Oh. 36, Oi. 973, Ca. 1220.

*Presented by Dr. Leach*, 1827.

## C. The Spanish Peninsula.

### a. *Ancient.*

371. A mutilated cranium, remarkable for the low retreating forehead, prominent supraorbital ridges, and peculiar conformation of the maxillæ.

From a quarry behind "Forbes Battery," in the brecciated talus under the North Front of the Rock of Gibraltar.

See Broca "Crânes et Ossements humaines des Cavernes de Gibraltar," 'Bullet. de la Soc. d'Anthropol. de Paris,' 18 Fév., 1869, 2e ser. t. vi. pp. 146–148. Reprinted in 'Mémoires d'Anthropologie,' t. ii. p. 370, fig. 55 (p. 377).

*Presented by George Busk, Esq.*, 1868.

372. A cranium found by Captain Brome in the Genista Cave, Gibraltar: ♂.

See "On the Caves of Gibraltar in which Human Remains and Works of Art have been found," by G. Busk, in 'Transactions of the International Congress of Prehistoric Archæology,' 1868 (Norwich meeting). This cranium is described at p. 162, and figured in pl. vii. figs. 1, 2, 3, and 4.

C. 522, L. 185, B. 140, Bi. 757, H. 142, Hi. 768, Ca. 1600.

*Presented by George Busk, Esq.*, 1868.

373. A cranium from the same locality: ♂.

Described and figured in the memoir cited above, pl. vii. figs. 5, 6, 7, and 8.

C. 525, L. 186, B. 141, Bi. 758, H. 140, Hi. 753, Ca. 1630.

*Presented by George Busk, Esq.*, 1868.

374. A cranium found by Sir James Cochrane in the "Judge's Cave," Gibraltar: ♂ ?

See Busk, *loc. cit.* p. 147, figs. 9, 10, and 11.

The upper margin of the left squamosal contains two distinct ossifications. The right side is normal.

C. 468, L. 170, B. 137, Bi. 806, H. 133, Hi. 782, Ca. 1270.

*Presented by George Busk, Esq.*, 1868.

## D. Italy.

### a. *Ancient.*

375. A mutilated cranium from Fasano (ancient *Gnathia*), Bari: ♂.

BN. 97, BA. 92, Ai. 948, Nh. 53, Nw. 23, Ni. 434, Ow. 41, Oh. 36, Oi. 878.

*Nicolucci Collection* *. *Purchased*, 1870.

376. A cranium from Rugge (ancient *Rudiæ*), near Lecce, Province of Otranto: ♂.

C. 534, L. 193, B. 142, Bi. 736, H. 140, Hi. 725.

*Nicolucci Collection*. *Purchased*, 1870.

377. A skull from Ceglie (ancient *Cœlium*), Province of Otranto: ♀.

The squamosals of both sides join the frontal bone.

C. 500, L. 179, B. 135, Bi. 755, H. 122, Hi. 682, BN. 94, BA. 92, Ai. 979, Nh. 50, Nw. 20, Ni. 400, Ow. 39, Oh. 38, Oi. 974.

*Nicolucci Collection*. *Purchased*, 1870.

"The above three skulls (375, 376, and 377) belong to the *Iapigi*, and are the only known examples of the race" (*G. Nicolucci*).

378. A skull from Capua, Terra di Lavoro. From a tomb of the first or second century B.C.

C. 527, L. 190, B. 140. Bi. 737, H. 135, Hi. 711, BN. 103, Nh. 51, Nw. 24, Ni. 471, Ow. 36, Oh. 35, Oi. 972.

*Nicolucci Collection*. *Purchased*, 1870.

379. A cranium from Cassino, Terra di Lavoro. From a tomb of the sixth century of the Christian era. ♂.

C. 503, L. 175, B. 138, Bi. 789, H. 130, Hi. 743, Nh. 48, Nw. 24, Ni. 500, Ow. 38, Oh. 32, Oi. 842.

*Nicolucci Collection*. *Purchased*, 1870.

380. A mutilated cranium from Cassino. From a tomb of the sixth century of the Christian era. ♀.

C. 515, L. 184, B. 138, Bi. 750.

*Nicolucci Collection*. *Purchased*, 1870.

* A collection of 38 ancient and 114 modern Italian, and 4 ancient and 10 modern Greek skulls, purchased in 1870 from Dr. Giustiniano Nicolucci, of Isola di Sora (Terra di Lavoro), Italy. The localities are given on the authority of Dr. Nicolucci.

The fifteen following specimens (Nos. 381 to 395 inclusive) were collected in the ancient necropolis of Aquinum. They are not older than two centuries before, nor more modern than two centuries after, the Christian era.

381. A skull from Aquino (ancient *Aquinum*), Terra di Lavoro : ♀ ?

The right squamosal touches the frontal.

C. 505, L. 174, B. 145, Bi. 833, H. 127, Hi. 730, BN. 85, BA. 88, Ai. 1035, Nh. 45, Nw. 23, Ni. 511, Ow. 36, Oh. 31, Oi. 861, Ca. 1400.

*Nicolucci Collection. Purchased,* 1870.

382. A skull from Aquino : ♀ ?

C. 507, L. 174, B. 147, Bi. 845, H. 132, Hi. 759, BN. 94, BA. 89, Ai. 947, Nh. 47, Nw. 26, Ni. 553, Ow. 37, Oh. 31, Oi. 838, Ca. 1475.

*Nicolucci Collection. Purchased,* 1870.

383. A skull from Aquino : ♂ ?

C. 510, L. 168, B. 150, Bi. 893, H. 127, Hi. 756, BN. 93, BA. 87, Ai. 935 Nh. 54, Nw. 25, Ni. 463, Ow. 39, Oh. 37, Oi. 949.

*Nicolucci Collection. Purchased,* 1870.

384. A skull from Aquino : ♂.

C. 525, L. 186, B. 137, Bi. 737, H. 148, Hi. 796, BN. 106, BA. 98, Ai. 925, Nh. 52, Nw. 24, Ni. 460, Ow. 40, Oh. 34, Oi. 850, Ca. 1570.

*Nicolucci Collection. Purchased,* 1870.

385. A calvaria from Aquino.

C. 492, L. 165, B. 140, Bi. 848, H. 121, Hi. 733.

*Nicolucci Collection. Purchased,* 1870.

386. A skull from Aquino : ♂.

C. 556, L. 196, B. 146, Bi. 737, H. 148, Hi. 747, BN. 111, BA. 104, Ai. 937, Nh. 56, Nw. 27, Ni. 482, Ow. 41, Oh. 37, Oi. 902.

*Nicolucci Collection. Purchased,* 1870.

387. A skull from Aquino : ♂.

C. 556, L. 197, B. 155, Bi. 787, H. 144, Hi. 731, BN. 108, BA. 105, Ai. 972, Nh. 53, Nw. 25, Ni. 472, Ow. 41, Oh. 36, Oi. 878, Ca. 1670.

*Nicolucci Collection. Purchased,* 1870.

388. A skull from Aquino : ♀.

C. 503, L. 178, B. 143, Bi. 803, H. 136, Hi. 764, BN. 99, BA. 93, Ai. 939, Nh. 48, Nw. 21, Ni. 438, Ow. 38, Oh. 32, Oi. 842, Ca. 1320.

*Nicolucci Collection.* *Purchased*, 1870.

389. A skull from Aquino : ♂.

C. 535, L. 190, B. 145, Bi. 763, H. 140, Hi. 737, BN. 106, BA. 103, Ai. 972, Nh. 51, Nw. 23, Ni. 451, Ow. 41, Oh. 34, Oi. 829, Ca. 1480.

*Nicolucci Collection.* *Purchased*, 1870.

390. A calvarium from Aquino : ♂.

Metopic.

C. 508, L. 180, B. 138, Bi. 767.

*Nicolucci Collection.* *Purchased*, 1870.

391. A skull from Aquino : ♂ ?

C. 505, L. 178, B. 141, Bi. 792, H. 129, Hi. 725, BN. 94, BA. 90, Ai. 957, Nh. 50, Nw. 21, Ni. 420, Ow. 38, Oh. 34, Oi. 895, Ca. 1375.

*Nicolucci Collection.* *Purchased*, 1870.

392. A calvarium from Aquino : ♀.

C. 513, L. 180, B. 140, Bi. 778, H. 130, Hi. 722, Ca. 1390.

*Nicolucci Collection.* *Purchased*, 1870.

393. The cranium of an aged person from Aquino. ♂.

The calvarial sutures are all obliterated ; the teeth are lost, and the alveoli absorbed.

C. 520, L. 182, B. 142, Bi. 780, H. 127, Hi. 698.

*Nicolucci Collection.* *Purchased*, 1870.

394. A skull from Aquino : ♀.

The left squamosal articulates with the frontal.

C. 504, L. 180, B. 132, Bi. 733, H. 131, Hi. 728, BN. 104, BA. 96, Ai. 923, Nh. 49, Nw. 23, Ni. 469, Ow. 37, Oh. 33, Oi. 892, Ca. 1310.

*Nicolucci Collection.* *Purchased*, 1870.

395. A skull from Aquino : ♂.

C. 525, L. 179, B. 151, Bi. 844, H. 131, Hi. 732, BN. 101, BA. 97, Ai. 960, Nh. 52, Nw. 24, Ni. 460, Ow. 40, Oh. 36, Oi. 900, Ca. 1520.

*Nicolucci Collection.* *Purchased*, 1870.

396. A mutilated skull from a tomb of the third century of the

Christian era, on the Via Latina, Isola di Sora (Prov. di Terra di Lavoro).

C. 515, L. 178, B. 141, Bi. 792.

*Nicolucci Collection. Purchased*, 1870.

397. A cranium from a tomb of the third century, on the Via Latina, Isola di Sora: ♀.

The right squamosal touches the frontal.

C. 507, L. 177, B. 140, Bi. 791, H. 130, Hi. 734.

*Nicolucci Collection. Purchased*, 1870.

398. A mutilated skull from a tomb of the third century, on the Via Latina, Isola di Sora: ♂.

C. 520, L. 179, B. 144, Bi. 804.

*Nicolucci Collection. Purchased*, 1870.

399. A cranium from a tomb on the Via Latina, Isola di Sora: ♂.

C. 525, L. 183, B. 145, Bi. 792.

*Nicolucci Collection. Purchased*, 1870.

400. A cranium from a tomb of the ninth century after Christ, at Bamo, Province of Frosinone: ♀?

C. 480, L. 167, B. 130, Bi. 778, Nh. 43, Nw. 22, Ni. 512, Ow. 36, Oh. 30, Oi. 833, Ca. 1230.

*Nicolucci Collection. Purchased*, 1870.

401. The mutilated skull of a child about 7 years of age, from a tomb anterior to the Christian era, at Arpino (*Arpinum*), Terra di Lavoro.

The milk-teeth and first permanent molars are in place.

L. 169, B. 125, Bi. 740.

*Nicolucci Collection. Purchased*, 1870.

402. A skull from Ostia: ♂.

C. 525, L. 182, B. 148, Bi. 813, H. 133, Hi. 731, BN. 103, BA. 98, Ai. 951, Nh. 49, Nw. 21, Ni. 429, Ow. 38, Oh. 32, Oi. 842.

*Nicolucci Collection. Purchased*, 1870.

403. A skull from Rome (*Via Latina*): ♂.

C. 532, L. 184, B. 149, Bi. 810, H. 135, Hi. 734, BN. 93, BA. 88, Ai. 946, Nh. 51, Nw. 24, Ni. 471, Ow. 38, Oh. 32, Oi. 842, Ca. 1600.

*Nicolucci Collection. Purchased*, 1870.

404. A skull from Rome (*Via Latina*): ♂.

C. 530, L. 182, B. 148, Bi. 813, H. 135, Hi. 742, BN. 102, BA. 93, Ai. 912, Nh. 51, Nw. 25, Ni. 490, Ow. 38, Oh. 35, Oi. 921, Ca. 1590.

*Nicolucci Collection. Purchased,* 1870.

405. A skull from Rome (*Via Appia*): ♂.

C. 530, L. 183, B. 148, Bi. 809, H. 138, Hi. 754, BN. 108, BA. 99, Ai. 917, Nh. 56, Nw. 23, Ni. 411, Ow. 41, Oh. 37, Oi. 902, Ca. 1575.

*Nicolucci Collection. Purchased,* 1870.

406. A cranium from a tomb in the ancient *Alba Fucensis*: ♀.

C. 502, L. 175, B. 135, Bi. 771, H. 125, Hi. 714, BN. 103, BA. 99, Ai. 961, Nh. 47, Nw. 23, Ni. 489, Oh. 36, Ow. 33, Oi. 917, Ca. 1270.

*Nicolucci Collection. Purchased,* 1870.

407. A skull from a tomb of the fourth century of the Christian era at Falerone (ancient *Valeria Picena*), Province of Ascoli: ♂.

C. 533, L. 180, B. 153, Bi. 850, H. 143, Hi. 794, BN. 105, BA. 98, Ai. 933, Nh. 58, Nw. 27, Ni. 465, Ow. 38, Oh. 34, Oi. 895, Ca. 1700.

*Nicolucci Collection. Purchased,* 1870.

408. The skull of a child from a tomb of the fourth century at Falerone (*Valeria Picena*).

The permanent incisors are in place; but the posterior milk-molars have not been shed.

C. 508, L. 177, B. 143, Bi. 808, H. 124, Hi. 701, Nh. 52, Nw. 22, Ni. 423, Ow. 38, Oh. 37, Oi. 974.

*Nicolucci Collection. Purchased,* 1870.

409. A cranium from Terracina, Province of Velletri; from a sepulture anterior to the Christian era: ♂.

C. 545, L. 185, B. 153, Bi. 827, H. 133, Hi. 719, BN. 100, BA. 91, Ai. 910, Ow. 41, Oh. 36, Oi. 878, Ca. 1690.

*Nicolucci Collection. Purchased,* 1870.

410. A skull from Ancona: ♂.

C. 513, L. 180, B. 140, Bi. 778, H. 132, Hi. 733, BN. 99, BA. 93, Ai. 939, Nh. 51, Nw. 23, Ni. 451, Ow. 39, Oh. 34, Oi. 872, Ca. 1475.

*Nicolucci Collection. Purchased,* 1870.

411. A cast of a skull found in a tomb anterior to the Christian era, at Modena: ♂.

C. 558, L. 201, B. 147, Bi. 731.

*Nicolucci Collection. Purchased*, 1870.

412. A skull from an ancient tomb in the *Agra Canavesano*, near Turin, a region inhabited by the Salassi, a people of Celtic origin: ♂.

"From Professor Garbiglietti."

C. 492, L. 173, B. 132, Bi. 763, H. 130, Hi. 751, BN. 98, BA. 94, Ai. 959, Nh. 48, Nw. 21, Ni. 438, Ow. 38, Oh. 33, Oi. 868, Ca. 1270.

*Nicolucci Collection. Purchased*, 1870.

b. *Modern.*

413. The skull of a child from Lecce, Province of Otranto.

All the milk-teeth are in place, with the first permanent molars.

C. 457, L. 165, B. 123, Bi. 745, H. 122, Hi. 740, BN. 81, BA. 74, Ai. 913, Nh. 39, Nw. 19, Ni. 487, Ow. 34, Oh. 29, Oi. 853.

*Nicolucci Collection. Purchased*, 1870.

414. The skull of an aged person from Lecce: ♀.

The teeth have nearly all been lost during life, and the coronal and sagittal sutures are partially ossified.

C. 455, L. 177, B. 128, Bi. 723, H. 129, Hi. 729, BN. 93, Nh. 47, Nw. 24, Ni. 511, Ow. 36, Oh. 30, Oi. 833, Ca. 1205.

*Nicolucci Collection. Purchased*, 1870.

415. A skull from Lecce: ♂.

Metopic.

C. 520, L. 182, B. 140, Bi. 769, H. 129, Hi. 709, BN. 99, BA. 97, Ai. 980, Nh. 49, Nw. 22, Ni. 449, Ow. 40, Oh. 32, Oi. 800, Ca. 1440.

*Nicolucci Collection. Purchased*, 1870.

416. A skull from Lecce: ♂.

The calvarial sutures are almost obliterated.

C. 518, L. 183, B. 142, Bi. 776, H. 138, Hi. 754, BN. 110, BA. 108, Ai. 982, Nh. 54, Nw. 27, Ni. 500, Oh. 38, Ow. 33, Oi. 868, Ca. 1420.

*Nicolucci Collection. Purchased*, 1870.

417. A skull from Lecce: ♀.

C. 457, L. 158, B. 130, Bi. 823, H. 119, Hi. 753, BN. 84, BA. 82, Ai. 976, Nh. 50, Nw. 21, Ni. 420, Ow. 35, Oh. 32, Oi. 914, Ca. 1050.

*Nicolucci Collection.* *Purchased,* 1870.

418. A skull from Naples: ♀.

Metopic.

C. 474, L. 168, B. 124, Bi. 738, H. 118, Hi. 702, BN. 99, BA. 101, Ai. 1020, Nh. 45, Nw. 19, Ni. 422, Ow. 37, Oh. 32, Oi. 865, Ca. 1090.

*Nicolucci Collection.* *Purchased,* 1870.

419. A skull from Naples: ♂.

A thick-walled heavy cranium, presenting a moderate degree of platybasic or plastic deformation. The sagittal suture is completely obliterated, and the coronal and lambdoidal sutures very simple.

C. 523, L. 183, B. 142, Bi. 776, H. 134, Hi. 732, BN. 106, BA. 111, Ai. 1047, Nh. 50, Nw. 26, Ni. 520, Ow. 39, Oh. 33, Oi. 846, Ca. 1450.

*Nicolucci Collection.* *Purchased,* 1870.

420. A skull from Naples: ♂.

Metopic.

C. 500, L. 170, B. 145, Bi. 853, H. 129, Hi. 759, BN. 93, BA. 91, Ai. 978, Nh. 49, Nw. 20, Ni. 408, Ow. 38, Oh. 31, Oi. 816, Ca. 1250.

*Nicolucci Collection.* *Purchased,* 1870.

421. A skull of a young person from Naples: ♂.

The basilar suture is still open, and the third molars are coming into place.

C. 515, L. 186, B. 139, Bi. 747, H. 139, Hi. 747, BN. 106, BA. 95, Ai. 896, Nh. 49, Nw. 27, Ni. 551, Ow. 40, Oh. 31, Oi. 775.

*Nicolucci Collection.* *Purchased,* 1870.

422. A skull from Benevento: ♂.

C. 520, L. 187, B. 140, Bi. 749, H. 145, Hi. 775, BN. 107, BA. 100, Ai. 935, Nh. 54, Nw. 25, Ni. 463, Ow. 41, Oh. 32, Oi. 780, Ca. 1520.

*Nicolucci Collection.* *Purchased,* 1870.

423. A skull from Benevento: ♀?

The mastoid and styloid processes are much developed; but all the other characters are feminine. The left squamosal articulates with the frontal by a broad process; the right approaches very near to it.

C. 482, L. 167, B. 135, Bi. 808, H. 127, Hi. 760, BN. 92, BA. 87, Ai. 946, Nh. 45, Nw. 20, Ni. 444, Ow. 36, Oh. 37, Oi. 1028, Ca. 1245.

*Nicolucci Collection. Purchased,* 1870.

424. A cranium from Fondi, Terra di Lavoro: ♂.

C. 482, L. 174, B. 124, Bi. 713, H. 132, Hi. 759, BN. 99, BA. 95, Ai. 960, Nh. 48, Nw. 24, Ni. 500, Ow. 39, Oh. 31, Oi. 795, Ca. 1150.

*Nicolucci Collection. Purchased,* 1870.

425. A cranium from Fondi: ♂.

C. 522, L. 179, B. 145, Bi. 810, H. 142, Hi. 793, BN. 103, BA. 104, Ai. 1010, Nh. 54, Nw. 26, Ni. 481, Ow. 40, Oh. 36, Oi. 900, Ca. 1640.

*Nicolucci Collection. Purchased,* 1870.

426. A cranium from Fondi: ♂.

C. 507, L. 177, B. 137, Bi. 774, H. 134, Hi. 757, BN. 102, BA. 97, Ai. 951, Nh. 52, Nw. 26, Ni. 500, Oh. 37, Ow. 33, Oi. 892, Ca. 1330.

*Nicolucci Collection. Purchased,* 1870.

427. A skull from Cassino, Terra di Lavoro: ♂.

C. 520, L. 181, B. 145, Bi. 801, H. 129, Hi. 713, BN. 107, BA. 102, Ai. 953, Nh. 54, Nw. 22, Ni. 407, Oh. 41, Ow. 34, Oi. 829, Ca. 1530.

*Nicolucci Collection. Purchased,* 1870.

428. A skull from Pontecorvo, Terra di Lavoro: ♀.

C. 497, L. 174, B. 141, Bi. 810, H. 126, Hi. 724, BN. 92, BA. 88, Ai. 957, Nh. 48, Nw. 22, Ni. 458, Ow. 37, Oh. 32, Oi. 865, Ca. 1250.

*Nicolucci Collection. Purchased,* 1870.

429. A cranium from Isoletta, Terra di Lavoro: ♂.

C. 484, L. 166, B. 139, Bi. 837, H. 135, Hi. 813, BN. 105, BA. 96, Ai. 914, Nh. 50, Nw. 23, Ni. 460, Ow. 38, Oh. 33, Oi. 868, Ca. 1320.

*Nicolucci Collection. Purchased,* 1870.

430. A skull from Isoletta: ♂.

C. 505, L. 179, B. 140, Bi. 782, H. 128, Hi. 715, BN. 98, BA. 99, Ai. 1010, Nh. 49, Nw. 23, Ni. 469, Ow. 38, Oh. 35, Oi. 921, Ca. 1425.

*Nicolucci Collection.* *Purchased,* 1870.

431. A cranium from Ceprano, Province of Frosinone: ♂.

C. 532, L. 190, B. 148, Bi. 779, H. 136, Hi. 716, BN. 101, BA. 97, Ai. 960, Nh. 46, Nw. 25, Ni. 543, Ow. 41, Oh. 32, Oi. 780, Ca. 1630.

*Nicolucci Collection.* *Purchased,* 1870.

432. A cranium from Ceprano: ♂.

Metopic.

C. 515, L. 180, B. 143, Bi. 794, H. 130, Hi. 722, BN. 109, BA. 105, Ai. 963, Nh. 57, Nw. 28, Ni. 491, Ow. 40, Oh. 36, Oi. 900, Ca. 1425.

*Nicolucci Collection.* *Purchased,* 1870.

433. A cranium from Ceprano: ♂.

C. 515, L. 172, B. 147, Bi. 855, H. 134, Hi. 779, BN. 97, BA. 92, Ai. 948, Nh. 55, Nw. 24, Ni. 436, Ow. 37, Oh. 35, Oi. 946, Ca. 1440.

*Nicolucci Collection.* *Purchased,* 1870.

434. The skull of a young person from Isola di Sora, Terra di Lavoro.

The basilar suture is open; and the last molars are not in place. The right upper premolars are both misplaced, being side by side and rotated on their axes.

C. 465, L. 158, B. 135, Bi. 854, H. 140, Hi. 886, BN. 98, BA. 92, Ai. 939, Nh. 44, Nw. 21, Ni. 477, Ow. 34, Oh. 30, Oi. 882.

*Nicolucci Collection.* *Purchased,* 1870.

435. A skull from Isola di Sora: ♂.

C. 512, L. 174, B. 150, Bi. 862, H. 138, Hi. 793, BN. 100, BA. 93, Ai. 930, Nh. 55, Nw. 23, Ni. 418, Ow. 38, Oh. 35, Oi. 921, Ca. 1475.

*Nicolucci Collection.* *Purchased,* 1870.

436. A skull from Isola di Sora: ♂?

C. 482, L. 165, B. 139, Bi. 842, H. 127, Hi. 770, BN. 97, BA. 94, Ai. 969, Nh. 44, Nw. 22, Ni. 500, Ow. 40, Oh. 30, Oi. 750, Ca. 1280.

*Nicolucci Collection.* *Purchased,* 1870.

437. A skull from Isola di Sora: ♂.

The right squamosal just touches the frontal.

C. 548, L. 190, B. 153, Bi. 805, H. 135, Hi. 711, BN. 100, BA. 93, Ai. 930, Nh. 51, Nw. 26, Ni. 510, Ow. 39, Oh. 36, Oi. 923, Ca. 1720.

*Nicolucci Collection. Purchased*, 1870.

438. A cranium from Isola di Sora: ♂.

C. 525, L. 178, B. 147, Bi. 826, H. 137, Hi. 770, BN. 102, BA. 96, Ai. 941, Nh. 55, Nw. 23, Ni. 418, Ow. 40, Oh. 34, Oi. 850, Ca. 1600.

*Nicolucci Collection. Purchased*, 1870.

439. A skull from Isola di Sora: ♂.

There is a large Wormian bone in the right fronto-parietal suture; and the posterior external angle of the left parietal appears to have ossified from a separate centre.

C. 526, L. 183, B. 145, Bi. 792, H. 140, Hi. 765, BN. 97, BA. 92, Ai. 948, Nh. 50, Nw. 24, Ni. 480, Ow. 39, Oh. 32, Oi. 820, Ca. 1590.

*Nicolucci Collection. Purchased*, 1870.

440. The skull of a child from Isola di Sora.

The permanent incisors are in place; but the upper milk-molars are still retained.

C. 485, L. 170, B. 140, Bi. 824, H. 130, Hi. 765, BN. 93, BA. 91, Ai. 978, Nh. 43, Nw. 20, Ni. 465, Ow. 35, Oh. 29, Oi. 829.

*Nicolucci Collection. Purchased*, 1870.

441. A cranium from Isola di Sora: ♀.

It is metopic, and has a considerable bregmatic depression.

C. 498, L. 175, B. 137, Bi. 783, H. 120, Hi. 686, BN. 94, BA. 88, Ai. 936, Nh. 47, Nw. 24, Ni. 511, Ow. 38, Oh. 35, Oi. 921, Ca. 1220.

*Nicolucci Collection. Purchased*, 1870.

442. A skull from Isola di Sora: ♂.

C. 507, L. 167, B. 150, Bi. 898, H. 134, Hi. 802, BN. 94, BA. 98, Ai. 1043, Nh. 55, Nw. 24, Ni. 436, Ow. 38, Oh. 32, Oi. 842, Ca. 1475.

*Nicolucci Collection. Purchased*, 1870.

443. A skull from Isola di Sora: ♂.

The left squamosal just touches the frontal.

C. 498, L. 168, B. 143, Bi. 851, H. 130, Hi. 774, BN. 90, BA. 87, Ai. 967, Nh. 50, Nw. 25, Ni. 500, Ow. 37, Oh. 31, Oi. 838, Ca. 1380.

*Nicolucci Collection.* ***Purchased,*** **1870.**

**444.** A skull from Isola di Sora: ♂.

It has a large, median, nearly symmetrical, lozenge-shaped independent ossification at the bregma.

C. 512, L. 172, B. 144, Bi. 837, H. 135, Hi. 785, BN. 101, BA. 96, Ai. 950, Nh. 51, Nw. 22, Ni. 431, Ow. 37, Oh. 30, Oi. 811, Ca. 1420.

*Nicolucci Collection.* ***Purchased,*** **1870.**

**445.** A cranium from Isola di Sora: ♀.

C. 492, L. 165, B. 144, Bi. 873, H. 129, Hi. 781, BN. 98, BA. 93, Ai. 949, Nh. 49, Nw. 24, Ni. 490, Ow. 37, Oh. 29, Oi. 784, Ca. 1320.

*Nicolucci Collection.* ***Purchased,*** **1870.**

**446.** A cranium from Isola di Sora: ♂.

C. 525, L. 182, B. 148, Bi. 813, H. 132, Hi. 725, BN. 97, BA. 90, Ai. 928, Nh. 47, Nw. 23, Ni. 489, Ow. 38, Oh. 34, Oi. 895, Ca. 1590.

*Nicolucci Collection.* ***Purchased,*** **1870.**

**447.** A skull from Isola di Sora.

C. 465, L. 158, B. 133, Bi. 842, H. 122, Hi. 772, BN. 95, BA. 97, Ai. 1021, Nh. 49, Nw. 23, Ni. 469, Ow. 37, Oh. 32, Oi. 865, Ca. 1140.

*Nicolucci Collection.* ***Purchased,*** **1870.**

**448.** A cranium from Isola di Sora: ♂.

Metopic.

C. 515, L. 182, B. 140, Bi. 769, H. 134, Hi. 736, BN. 104, BA. 103, Ai. 990, Nh. 53, Nw. 23, Ni. 434, Ow. 40, Oh. 31, Oi. 775, Ca. 1390.

*Nicolucci Collection.* ***Purchased,*** **1870.**

**449.** A skull from Isola di Sora: ♂.

C. 530, L. 183, B. 153, Bi. 836, H. 147, Hi. 803, BN. 99, BA. 88, Ai. 889, Nh. 52, Nw. 24, Ni. 460, Ow. 40, Oh. 34, Oi. 850, Ca. 1750.

*Nicolucci Collection.* ***Purchased,*** **1870.**

450. The cranium of an old person from Isola di Sora: ♀.

All the teeth have been lost during life. The coronal suture is partially obliterated.

C. 518, L. 184, B. 143, Bi. 777, H. 133, Hi. 723, Ca. 1520.

*Nicolucci Collection. Purchased,* 1870.

451. A skull from Isola di Sora: ♂.

The occiput is flattened, as if from pressure in infancy. The sagittal and lambdoidal sutures are almost obliterated.

C. 522, L. 173, B. 157, Bi. 908, H. 142, Hi. 821, BN. 102, BA. 97, Ai. 951, Nh. 49, Nw. 25, Ni. 510, Ow. 39, Oh. 32, Oi. 820, Ca. 1680.

*Nicolucci Collection. Purchased,* 1870.

452. A skull from Isola di Sora: ♀.

C. 502, L. 181, B. 134, Bi. 740, H. 130, Hi. 718, BN. 95, BA. 91, Ai. 958, Nh. 49, Nw. 21, Ni. 429, Ow. 39, Oh. 35, Oi. 897, Ca. 1330.

*Nicolucci Collection. Purchased,* 1870.

453. A cranium from Isola di Sora: ♂.

C. 518, L. 180, B. 146, Bi. 811, H. 133, Hi. 739, BN. 104, BA. 97, Ai. 933, Nh. 49, Nw. 27, Ni. 551, Ow. 39, Oh. 33, Oi. 846, Ca. 1430.

*Nicolucci Collection. Purchased,* 1870.

454. A cranium from Arpino, Terra di Lavoro: ♂.

C. 538, L. 189, B. 145, Bi. 767, H. 140, Hi. 741, BN. 111, BA. 103, Ai. 928, Nh. 55, Nw. 24, Ni. 436, Ow. 44, Oh. 36, Oi. 818, Ca. 1635.

*Nicolucci Collection. Purchased,* 1870.

455. A cranium from Arpino: ♂.

C. 540, L. 188, B. 155, Bi. 824, H. 129, Hi. 686, BN. 103, BA. 105, Ai. 1019, Nh. 55, Nw. 26, Ni. 473, Ow. 41, Oh. 37, Oi. 902, Ca. 1670.

*Nicolucci Collection. Purchased,* 1870.

456. A skull from Arpino: ♂.

C. 497, L. 175, B. 137, Bi. 783, H. 132, Hi. 754, BN. 104, Nh. 53, Nw. 27, Ni. 509, Ow. 43, Oh. 34, Oi. 791, Ca. 1220.

*Nicolucci Collection. Purchased,* 1870.

457. A skull from Arpino: ♂.

C. 528, L. 188, B. 142, Bi. 755, H. 143, Hi. 761, BN. 108,

BA. 99, Ai. 917, Nh. 56, Nw. 23, Ni. 411, Ow. 40, Oh. 34, Oi. 850, Ca. 1600.

*Nicolucci Collection.* ***Purchased,*** **1870.**

458. A cranium from Arpino: ♂.

C. 503, L. 170, B. 144, Bi. 847, H. 132, Hi. 776, BN. 103, BA. 98, Ai. 951, Nh. 53, Nw. 25, Ni. 472, Ow. 40, Oh. 31, Oi. 775, Ca. 1370.

*Nicolucci Collection.* ***Purchased,*** **1870.**

459. A skull of an aged person from Arpino: ♀.

All the teeth have been lost; but the calvarial sutures are only partially closed.

C. 502, L. 176, B. 142, Bi. 807, H. 126, Hi. 716, BN. 92, Nh. 49, Nw. 24, Ni. 490, Ow. 34, Oh. 33, Oi. 971, Ca. 1400.

*Nicolucci Collection.* ***Purchased,*** **1870.**

460. A skull from Arpino: ♂.

C. 510, L. 179, B. 141, Bi. 788, H. 124, Hi. 693, BN. 96, BA. 96, Ai. 1000, Nh. 52, Nw. 25, Ni. 482, Ow. 38, Oh. 34, Oi. 895, Ca. 1350.

*Nicolucci Collection.* ***Purchased,*** **1870.**

461. A skull from Arpino.

C. 495, L. 173, B. 143, Bi. 827, H. 124, Hi. 717, BN. 93, BA. 90, Ai. 968, Nh. 49, Nw. 22, Ni. 449, Ow. 36, Oh. 32, Oi. 889, Ca. 1300.

*Nicolucci Collection.* ***Purchased,*** **1870.**

462. A cranium from Arpino: ♂.

C. 515, L. 174, B. 150, Bi. 862, H. 134, Hi. 770, BN. 95, BA. 90, Ai. 947, Nh. 53, Nw. 22, Ni. 415, Ow. 40, Oh. 34, Oi. 850, Ca. 1560.

*Nicolucci Collection.* ***Purchased,*** **1870.**

463. A cranium from Arpino: ♂.

C. 525, L. 185, B. 145, Bi. 784, H. 136, Hi. 735, BN. 102, BA. 96, Ai. 941, Nh. 58, Nw. 28, Ni. 483, Ow. 40, Oh. 38, Oi. 950, Ca. 1525.

*Nicolucci Collection.* ***Purchased,*** **1870.**

464. The skull of a young person from Sora, Terra di Lavoro: ♀.

The basilar suture is not closed. All the permanent teeth are in place, except the third molars.

C. 465, L. 163, B. 132, Bi. 810, H. 125, Hi. 767, BN. 89, BA. 86, Ai. 966, Nh. 42, Nw. 20, Ni. 476, Ow. 36, Oh. 30, Oi. 833.

*Nicolucci Collection. Purchased*, 1870.

465. A skull from Sora: ♂.

The stylohyals are strongly ossified and ankylosed to the skull, forming a "styloid process" on the right side two inches in length. That of the left side has been broken off.

C. 512, L. 171, B. 147, Bi. 860, H. 134, Hi. 784, BN. 102, BA. 99, Ai. 971, Nh. 50, Nw. 25, Ni. 500, Ow. 39, Oh. 29, Oi. 744, Ca. 1400.

*Nicolucci Collection. Purchased*, 1870.

466. A cranium from Castelluccio: ♂.

The basal portion is broken away.

C. 523, L. 182, B. 147, Bi. 808, Nh. 54, Nw. 24, Ni. 444, Ow. 39, Oh. 33, Oi. 846, Ca. 1680 (approximately).

*Nicolucci Collection. Purchased*, 1870.

467. The cranium of a child from Castelluccio.

The milk-molars and first permanent molars are in place.

C. 470, L. 163, B. 135, Bi. 828, H. 123, Hi. 755, BN. 82, BA. 76, Ai. 927, Nh. 39, Nw. 20, Ni. 513, Ow. 34, Oh. 31, Oi. 912.

*Nicolucci Collection. Purchased*, 1870.

468. A cranium from Atina, Terra di Lavoro: ♂.

C. 498, L. 170, B. 142, Bi. 835, H. 131, Hi. 771, BN. 95, BA. 91, Ai. 958, Nh. 48, Nw. 24, Ni. 500, Ow. 37, Oh. 34, Oi. 919, Ca. 1400.

*Nicolucci Collection. Purchased*, 1870.

469. A cranium from Alvito, Terra di Lavoro: ♂.

A Wormian bone is developed in the right side of the coronal suture.

C. 533, L. 190, B. 144, Bi. 758, H. 140, Hi. 737, BN. 101, Nh. 53, Nw. 24, Ni. 453, Ow. 40, Oh. 30, Oi. 750, Ca. 1620.

*Nicolucci Collection. Purchased*, 1870.

470. A skull from Pescosolido, Terra di Lavoro: ♂.

C. 523, L. 183, B. 145, Bi. 792, H. 125, Hi. 683, BN. 99, BA. 94, Ai. 949, Nh. 55, Nw. 23, Ni. 418, Ow. 40, Oh. 37, Oi. 925, Ca. 1460.

*Nicolucci Collection. Purchased*, 1870.

471. A skull from Pescosolido: ♂.

C. 485, L. 164, B. 144, Bi. 878, H. 127, Hi. 774, BN. 95, BA. 98, Ai. 1032, Nh. 48, Nw. 24, Ni. 500, Ow. 39, Oh. 33, Oi. 846, Ca. 1260.

*Nicolucci Collection.* *Purchased,* 1870.

472. A cranium from Santo Padre, Terra di Lavoro: ♂.

C. 515, L. 181, B. 143, Bi. 790, H. 124, Hi. 685, BN. 101, BA. 100, Ai. 990, Nh. 53, Nw. 24, Ni. 453, Ow. 40, Oh. 35, Oi. 875, Ca. 1490.

*Nicolucci Collection.* *Purchased,* 1870.

473. A cranium from Bamo, Province of Frosinone: ♂.

C. 523, L. 178, B. 149, Bi. 837, H. 125, Hi. 702, Ca. 1405.

*Nicolucci Collection.* *Purchased,* 1870.

474. A skull from Rome: ♂.

C. 520, L. 180, B. 144, Bi. 800, H. 137, Hi. 761, BN. 106, BA. 101, Ai. 953, Nh. 53, Nw. 24, Ni. 453, Ow. 39, Oh. 34, Oi. 872, Ca. 1530.

*Nicolucci Collection.* *Purchased,* 1870.

475. A skull from Rome: ♂.

Marked "Cranio romano odierno, Prof. Carlo Maggiorano."

The region of the opisthion is remarkably flattened, giving a nearly horizontal direction to the plane of the occipital foramen (which is of very small size), and a basilar angle of 30°*.

C. 533, L. 183, B. 149, Bi. 814, H. 128, Hi. 699, BN. 96, BA. 99, Ai. 1031, Nh. 56, Nw. 26, Ni. 464, Ow. 38, Oh. 33, Oi. 868, Ca. 1500.

*Nicolucci Collection.* *Purchased,* 1870.

476. A skull from Rome: ♂.

This forms a great contrast to the last in the prominence of the region of the opisthion, the basilar angle being only 7°.

C. 523, L. 181, B. 147, Bi. 812, H. 130, Hi. 718, BN. 95, BA. 95, Ai. 1000, Nh. 50, Nw. 24, Ni. 480, Ow. 40, Oh. 36, Oi. 900, Ca. 1620.

*Nicolucci Collection.* *Purchased,* 1870.

477. A skull from Rome: ♂.

"Trasteverino dell' età di 40 anni."

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* The angle NBY, Broca, 'Instructions craniologiques' (1875), p. 92.

C. 520, L. 182, B. 145, Bi. 797, H. 124, Hi. 681, BN. 96, BA. 98, Ai. 1021, Nh. 51, Nw. 25, Ni. 490, Ow. 38, Oh. 32, Oi. 842, Ca. 1525.

*Nicolucci Collection. Purchased*, 1870.

478. A skull from Rome: ♂.

It is of great size, massive and rugged; the muscular ridges and impressions, especially the inion, are strongly marked.

C. 570, L. 198, B. 156, Bi. 788, H. 130, Hi. 657, BN. 104, BA. 102, Ai. 981, Nh. 61, Nw. 25, Ni. 410, Ow. 44, Oh. 41, Oi. 900, Ca. 1500.

*Nicolucci Collection. Purchased*, 1870.

479. A skull from Rome: ♂.

C. 525, L. 183, B. 146, Bi. 798, H. 140, Hi. 765, BN. 107, BA. 98, Ai. 916, Nh. 53, Nw. 26, Ni. 491, Ow. 39, Oh. 34, Oi. 909, Ca. 1500.

*Nicolucci Collection. Purchased*, 1870.

480. A cranium from Ferentino, Province of Frosinone: ♂.

The calvarial sutures are almost obliterated.

C. 515, L. 184, B. 138, Bi. 750, H. 135, Hi. 734, BN. 99, BA. 103, Ai. 1040, Nh. 49, Nw. 24, Ni. 490, Ow. 39, Oh. 29, Oi. 744, Ca. 1600.

*Nicolucci Collection. Purchased*, 1870.

481. A cranium from Ferentino: ♀.

C. 472, L. 164, B. 132, Bi. 805, H. 120, Hi. 732, BN. 96, BA. 96, Ai. 1000, Nh. 46, Nw. 23, Ni. 500, Ow. 37, Oh. 30, Oi. 811, Ca. 1060.

*Nicolucci Collection. Purchased*, 1870.

482. A cranium from Ferentino: ♀.

C. 520, L. 186, B. 144, Bi. 774, H. 129, Hi. 694, BN. 98, BA. 92, Ai. 939, Nh. 53, Nw. 23, Ni. 434, Ow. 38, Oh. 34, Oi. 895, Ca. 1420.

*Nicolucci Collection. Purchased*, 1870.

483. A cranium from Balsorano, Abruzzo: ♂.

The calvarial sutures are almost obliterated.

C. 530, L. 183, B. 148, Bi. 809, H. 137, Hi. 749, BN. 101, BA. 94, Ai. 931, Nh. 51, Nw. 25, Ni. 490, Ow. 40, Oh. 32, Oi. 800, Ca. 1550.

*Nicolucci Collection. Purchased*, 1870.

484. A cranium from S. Giovanni in Valle Roveto, Abruzzo: ♂.

The teeth have been lost during life; and the calvarial sutures are consolidated.

C. 508, L. 182, B. 134, Bi. 736, H. 129, Hi. 709, BN. 100, Nh. 53, Nw. 23, Ni. 434, Ow. 39, Oh. 32, Oi. 820, Ca. 1400.

*Nicolucci Collection.* *Purchased,* 1870.

485. The cranium of a child from S. Giovanni in Valle Roveto.

The milk-teeth and first true molars are in place. The frontal suture is not closed. Besides the epipteric bones on both sides, there is a separate ossification along the whole of the left squamoso-parietal suture.

C. 505, L. 178, B. 142, Bi. 798, H. 127, Hi. 713, BN. 88, BA. 83, Ai. 943, Nh. 44, Nw. 21, Ni. 477, Ow. 35, Oh. 32, Oi. 914.

*Nicolucci Collection.* *Purchased,* 1870.

486. A cranium from S. Giovanni in Valle Roveto: ♀.

C. 477, L. 166, B. 137, Bi. 825, H. 130, Hi. 783, BN. 92, BA. 87, Ai. 946, Nh. 47, Nw. 22, Ni. 468, Ow. 38, Oh. 34, Oi. 895, Ca. 1250.

*Nicolucci Collection.* *Purchased,* 1870.

487. A cranium from Capistrello, Abruzzo: ♂.

A very heavy cranium. The calvarial sutures are nearly consolidated.

C. 527, L. 180, B. 153, Bi. 850, H. 137, Hi. 761, BN. 99, BA. 92, Ai. 929, Nh. 55, Nw. 23, Ni. 418, Ow. 38, Oh. 35, Oi. 921, Ca. 1590.

*Nicolucci Collection.* *Purchased,* 1870.

488. A skull from Capistrello: ♀.

Metopic, with bregmatic depression and occipital flattening.

C. 508, L. 172, B. 148, Bi. 860, H. 129, Hi. 750, BN. 99, BA. 93, Ai. 939, Nh. 50, Nw. 21, Ni. 420, Ow. 40, Oh. 34, Oi. 850, Ca. 1435.

*Nicolucci Collection.* *Purchased,* 1870.

489. A skull from Avezzano, Abruzzo: ♀.

C. 495, L. 168, B. 146, Bi. 869, H. 125, Hi. 744, BN. 93, BA. 88, Ai. 946, Nh. 48, Nw. 26, Ni. 542, Ow. 35, Oh. 30, Oi. 857, Ca. 1370.

*Nicolucci Collection.* *Purchased,* 1870.

490. A cranium from Avezzano: ♂

C. 493, L. 168, B. 141, Bi. 839, H. 130, Hi. 774, BN. 91, BA. 89, Ai. 978, Nh. 52, Nw. 23, Ni. 442, Ow. 37, Oh. 32, Oi. 865, Ca. 1360.

*Nicolucci Collection. Purchased,* 1870.

491. A cranium from Luco, Abruzzo: ♂.

The sagittal and coronal sutures are nearly obliterated.

C. 517, L. 182, B. 144, Bi. 791, H. 137, Hi. 753, BN. 101, BA. 97, Ai. 960, Nh. 53, Nw. 25, Ni. 472, Ow. 40, Oh. 32, Oi. 800, Ca. 1500.

*Nicolucci Collection. Purchased,* 1870.

492. A cranium of a young person from Luco: ♀.

The basilar suture is open. All the permanent teeth, except the posterior molars, are in place. There is a considerable post-bregmatic transverse depression.

C. 482, L. 165, B. 138, Bi. 836, H. 135, Hi. 818, BN. 104, BA. 95, Ai. 905, Nh. 52, Nw. 23, Ni. 442, Ow. 38, Oh. 35, Oi. 921.

*Nicolucci Collection. Purchased,* 1870.

493. A cranium from Luco: ♂.

A partially healed horizontal incision, apparently from a sabre-blow, extends nearly across the frontal bone.

C. 493, L. 176, B. 133, Bi. 756, H. 140, Hi. 795, BN. 100, BA. 93, Ai. 930, Nh. 46, Nw. 24, Ni. 522, Ow. 39, Oh. 32, Oi. 820, Ca. 1250.

*Nicolucci Collection. Purchased,* 1870.

494. A skull from Luco: ♀.

C. 507, L. 180, B. 137, Bi. 761, H. 125, Hi. 694, BN. 100, Nh. 43, Nw. 26, Ni. 605, Ow. 37, Oh. 34, Oi. 919, Ca. 1340.

*Nicolucci Collection. Purchased,* 1870.

495. A cranium from Luco: ♂.

The calvarial sutures are nearly obliterated.

C. 505, L. 175, B. 140, Bi. 800, H. 137, Hi. 783, BN. 100, BA. 93, Ai. 930, Nh. 50, Nw. 24, Ni. 480, Ow. 39, Oh. 31, Oi. 795, Ca. 1355.

*Nicolucci Collection. Purchased,* 1870.

496. A cranium from Alba Fucense, Abruzzo: ♂.

C. 515, L. 180, B. 140, Bi. 778, H. 132, Hi. 733, BN. 100,

BA. 109, Ai. 991, Nh. 55, Nw. 22, Ni. 400, Ow. 40, Oh. 34, Oi. 850, Ca. 1480.

*Nicolucci Collection. Purchased,* 1870.

497. A cranium from Ortucchio, Abruzzo: ♂.

C. 510, L. 178, B. 143, Bi. 803, H. 134, Hi. 753, BN. 94, BA. 98, Ai. 1043, Nh. 50, Nw. 27, Ni. 540, Ow. 40, Oh. 31, Oi. 775, Ca. 1410.

*Nicolucci Collection. Purchased,* 1870.

498. A cranium from Trasacco, Abruzzo: ♂.

C. 507, L. 177, B. 144, Bi. 814, H. 130, Hi. 734, BN. 105, BA. 105, Ai. 1000, Nh. 49, Nw. 27, Ni. 551, Ow. 40, Oh. 31, Oi. 775, Ca. 1380.

*Nicolucci Collection. Purchased,* 1870.

499. A cranium from Paterno, Abruzzo: ♀.

C 500, L. 178, B. 137, Bi. 770, H. 130, Hi. 730, BN. 96, BA. 93, Ai. 969, Nh. 52, Nw. 24, Ni. 460, Ow. 36, Oh. 34, Oi. 944, Ca. 1375.

*Nicolucci Collection. Purchased,* 1870.

500. A skull from Tagliacozzo, Abruzzo: ♀.

C. 492, L. 176, B. 132, Bi. 750, H. 122, Hi. 693, BN. 94, BA. 88, Ai. 936, Nh. 46, Nw. 22, Ni. 478, Ow. 35, Oh. 33, Oi. 943, Ca. 1290.

*Nicolucci Collection. Purchased,* 1870.

501. A skull from Popoli, Abruzzo: ♀.

C. 507, L. 178, B. 142, Bi. 798, H. 121, Hi. 680, BN. 93, BA. 88, Ai. 946, Nh. 51, Nw. 21, Ni. 412, Ow. 40, Oh. 36, Oi. 900, Ca. 1330.

*Nicolucci Collection. Purchased,* 1870.

502. A cranium from Aquila, Abruzzo: ♂.

It is flattened posteriorly, apparently from compression in infancy.

C. 500, L. 167, B. 150, Bi. 898, H. 135, Hi. 808, BN. 100, BA. 90, Ai. 900, Nh. 52, Nw. 24, Ni. 460, Ow. 36, Oh. 34, Oi. 944, Ca. 1400.

*Nicolucci Collection. Purchased,* 1870.

503. A cranium from Aquila: ♀.

All the teeth have been lost during life.

C. 483, L. 169, B. 134, Bi. 793, H. 126, Hi. 746, BN. 95, Nh. 44, Nw. 24, Ni. 545, Ow. 36, Oh. 33, Oi. 917, Ca. 1160.

*Nicolucci Collection. Purchased,* 1870.

504. A skull from Aquila : ♂.

Though all the true molars are in place, the second left lower milk-molar is retained and occupies the place of the permanent premolar, which appears not to have been developed. The sagittal suture is almost entirely obliterated, though the coronal and lambdoidal sutures are free.

C. 528, L. 192, B. 144, Bi. 750, H. 138, Hi. 719, BN. 103, BA. 93, Ai. 903, Nh. 50, Nw. 22, Ni. 440, Ow. 39, Oh. 35, Oi. 897, Ca. 1525.

*Nicolucci Collection. Purchased*, 1870.

505. A cranium from Aquila.

The teeth have nearly all been lost during life; but the right canine is retained in the alveolus, and displaced inwards. The contiguous premolar is also displaced, and rotated on its axis.

C. 480, L. 170, B. 135, Bi. 794, H. 127, Hi. 747, BN. 95, Nh. 50, Nw. 27, Ni. 540, Ow. 39, Oh. 33, Oi. 846, Ca. 1170.

*Nicolucci Collection. Purchased*, 1870.

506. A skull from Chieti, Abruzzo : ♂.

Metopic, though the sagittal suture is partly closed.

C. 523, L. 188, B. 138, Bi. 734, H. 128, Hi. 681, BN. 102, BA. 99, Ai. 971, Nh. 52, Nw. 20, Ni. 386, Ow. 37, Oh. 34, Oi. 919, Ca. 1450.

*Nicolucci Collection. Purchased*, 1870.

507. A cranium from Torviglia, Provincia di Genova : ♀.

Marked "Montanaro Ligure. Garbiglietti. Vero tipo dei Monte Liguri." This and the next are remarkable for their low vertical (basibregmatic) diameter (H). The elevated position of the basion and consequent shortness of the basinasal line (BN) causes the high alveolar index. The squamosals and frontals in both nearly meet at the pterion, a small epipteric being interposed.

C. 519, L. 179, B. 146, Bi. 816, H. 115, Hi. 642, BN. 86, BA. 92, Ai. 1070, Nh. 47, Nw. 23, Ni. 489, Ow. 38, Oh. 34, Oi. 895, Ca. 1445.

*Nicolucci Collection. Purchased*, 1870.

508. A skull of a peasant from Porto Maurizio, Liguria.

Marked "Montanaro Ligure in sui 70 anni. Garbiglietti." All the upper teeth have been lost during life, though the lower incisors and premolars remain.

C. 500, L. 171, B. 144, Bi. 842, H. 112, Hi. 655, BN. 85, Nh. 54, Nw. 23, Ni. 426, Ow. 36, Oh. 37, Oi. 1028, Ca. 1280.

*Nicolucci Collection. Purchased*, 1870.

509. A skull from Liguria, Provincia di Genova : ♂.

Marked "Montanaro Ligure in sui 50 anni. Garbiglietti." The atlas is firmly ankylosed to the occipital bone. The calvarial sutures are very complex; and there is an oblong Wormian bone at the anterior extremity of the sagittal suture. As will be seen by the indices, this skull is of a totally different form from the two which precede it.

C. 527, L. 186, B. 142, Bi. 763, H. 143, Hi. 769, BN. 106, BA. 106, Ai. 1000, Nh. 53, Nw. 24, Ni. 460, Ow. 40, Oh. 38, Oi. 950, Ca. 1570.

*Nicolucci Collection.* *Purchased*, 1870.

510. A skull of a native of Parma : ♂.

C. 535, L. 178, B. 153, Bi. 860, H. 136, Hi. 764, BN. 104, BA. 98, Ai. 942, Nh. 55, Nw. 25, Ni. 455, Ow. 40, Oh. 36, Oi. 900, Ca. 1550.

*Nicolucci Collection.* *Purchased*, 1870.

511. The skull of a male native of Modena.

A metopic skull, with commencing obliteration of the sutures.

C. 510, L. 184, B. 135, Bi. 734, H. 127, Hi. 690, BN. 100, BA. 94, Ai. 940, Nh. 52, Nw. 23, Ni. 442, Ow. 39, Oh. 33, Oi. 846, Ca. 1310.

*Nicolucci Collection.* *Purchased*, 1870.

The six following specimens (but more especially Nos. 514 and 515) exhibit very well the characteristic differences of the skull in the two sexes.

512. The skull of a male Modenese, aged 45.

The teeth are very small, and the posterior molars absent in both jaws.

C. 517, L. 173, B. 154, Bi. 890, H. 135, Hi. 780, BN. 97, BA. 87, Ai. 897, Nh. 50, Nw. 25, Ni. 500, Ow. 39, Oh. 32, Oi. 820, Ca. 1570.

*Nicolucci Collection.* *Purchased*, 1870.

513. The skull of a female native of Modena.

Metopic. The mastoid processes are large for a female.

C. 480, L. 170, B. 132, Bi. 776, H. 117, Hi. 688, BN. 95, BA. 98, Ai. 1032, Nh. 45, Nw. 23, Ni. 511, Ow. 35, Oh. 29, Oi. 829, Ca. 1235.

*Nicolucci Collection.* *Purchased*, 1870.

514. The skull of a man of Bologna.

C. 534, L. 186, B. 145, Bi. 780, H. 136, Hi. 731, BN. 110,

BA. 105, Ai. 955, Nh. 51, Nw. 26, Ni. 510, Ow. 42, Oh. 36, Oi. 857, Ca. 1520.

*Nicolucci Collection. Purchased*, 1870.

515. The skull of a woman of Bologna.

Both permanent upper canines are partially embedded in the palate, and the milk-canines occupy their places in the dental arch, although the basilar suture is united and the third molars are coming into place. The posterior lower right milk-molar is also retained; but it is about to be displaced by its successor. The second left lower incisor has a bifurcate root.

C. 487, L. 170, B. 137, Bi. 806, H. 122, Hi. 718, BN. 94, BA. 97, Ai. 1032, Nh. 49, Nw. 22, Ni. 449, Ow. 35, Oh. 33, Oi. 943, Ca. 1225.

*Nicolucci Collection. Purchased*, 1870.

516. The skull of a Lombard of Pavia : ♂.

"From Professor Garbiglietti. The phrenological system of Vimont has been marked on the left side by Dr. Panizza."

C. 502, L. 171, B. 143, Bi. 836, H. 140, Hi. 819, BN. 101, BA. 97, Ai. 960, Nh. 50, Nw. 23, Ni. 460, Ow. 38, Oh. 33, Oi. 868, Ca. 1430.

*Nicolucci Collection. Purchased*, 1870.

517. A skull from Pavia : ♀.

The right upper canine is embedded in the palate.

C. 487, L. 170, B. 138, Bi. 812, H. 125, Hi. 735, BN. 93, BA. 88, Ai. 946, Nh. 49, Nw. 27, Ni. 551, Ow. 34, Oh. 34, Oi. 1000, Ca. 1300.

*Nicolucci Collection. Purchased*, 1870.

518. The cranium of a woman of Breschia, Lombardia.

Metopic.

C. 480, L. 167, B. 133, Bi. 796, H. 125, Hi. 749, BN. 92, BA. 86, Ai. 934, Nh. 44, Nw. 21, Ni. 477, Ow. 35, Oh. 34, Oi. 971, Ca. 1290.

*Nicolucci Collection. Purchased*, 1870.

519. A skull from Turin : ♂.

"Piemontese in sui 45 anni. Garbiglietti."

C. 523, L. 179, B. 150, Bi. 838, H. 140, Hi. 782, BN. 102, BA. 100, Ai. 980, Nh. 49, Nw. 23, Ni. 469, Ow. 38, Oh. 32, Oi. 842, Ca. 1600.

*Nicolucci Collection. Purchased*, 1870.

520. A mutilated calvaria from Rivarolo, Canavese.

From a tomb of the sixteenth century.

*Nicolucci Collection.* ***Purchased,*** **1870.**

521. A skull from S. Romedio, Trentino: ♂.

C. 518, L. 173, B. 152, Bi. 879, H. 132, Hi. 763, BN. 95, BA. 87, Ai. 915, Nh. 55, Nw. 24, Ni. 436, Ow. 39, Oh. 35, Oi. 897, Ca. 1430.

*Nicolucci Collection.* ***Purchased,*** **1870.**

522. A cranium from S. Romedio, Trentino: ♀.

All the teeth have been lost during life, and the alveolar processes of the maxillæ are completely absorbed.

C. 498, L. 175, B. 140, Bi. 800, H. 130, Hi. 743, BN. 99, Nh. 45, Nw. 21, Ni. 467, Ow. 41, Oh. 32, Oi. 780, Ca. 1200.

*Nicolucci Collection.* ***Purchased,*** **1870.**

523. The skull of a male native of Udine, Provincia di Venezia; an infantry soldier, aged 22.

C. 503, L. 170, B. 148, Bi. 871, H. 125, Hi. 735, BN. 102, BA. 97, Ai. 951, Nh. 55, Nw. 24, Ni. 436, Ow. 37, Oh. 34, Oi. 919, Ca. 1430.

*Nicolucci Collection.* ***Purchased,*** **1870.**

524. The skull of a male native of Solino, Belluno, Provincia di Venezia; an infantry soldier, aged 23.

C. 505, L. 175, B. 140, Bi. 800, H. 121, Hi. 691, BN. 99, BA. 99, Ai. 1000, Nh. 51, Nw. 23, Ni. 451, Ow. 37, Oh. 31, Oi. 838, Ca. 1360.

*Nicolucci Collection.* ***Purchased,*** **1870.**

525. A cranium from Palazzolo, Acreide, Sicily: ♂.

The frontal bone has been broken and a great portion lost.

C. 508, L. 180, B. 146, Bi. 811, H. 136, Hi. 756, BN. 101, Nh. 49, Nw. 26, Ni. 531, Ow. 38, Oh. 31, Oi. 816, Ca. 1450.

*Nicolucci Collection.* ***Purchased,*** **1870.**

526. A cranium from Palermo, Sicily: ♂.

Metopic.

C. 504, L. 172, B. 139, Bi. 808, H. 130, Hi. 756, BN. 97, BA. 97, Ai. 1000, Nh. 46, Nw. 24, Ni. 522, Ow. 39, Oh. 30, Oi. 769, Ca. 1400.

*Nicolucci Collection.* ***Purchased,*** **1870.**

527. The cranium of a Piedmontese : ♂. O. C. 5718.

C. 526, L. 178, B. 150, Bi. 843, H. 140, Hi. 787, BN. 102, BA. 93, Ai. 912, Nh. 49, Nw. 21, Ni. 429, Ow. 38, Oh. 34, Oi. 895, Ca. 1625.

*From the Collection of John Flint South, Esq. Purchased,* 1835.

## E. Greece and the Ancient Greek Colonies.

### a. *Ancient.*

528. A skull from an ancient tomb at Cuma (Eolic colony) * : ♂.

C. 557, L. 203, B. 145, Bi. 714, H. 140, Hi. 690, BN. 110, BA. 110, Ai. 1000, Nh. 55, Nw. 31, Ni. 564, Ow. 40, Oh. 32, Oi. 800, Ca. 1600.

*Nicolucci Collection* (1). *Purchased,* 1870.

529. A skull from an ancient tomb at Cuma : ♀.

C. 525, L. 188, B. 139, Bi. 739, H. 129, Hi. 686, BN. 105, BA. 102, Ai. 971, Nh. 53, Nw. 25, Ni. 472, Ow. 39, Oh. 35, Oi. 897.

*Nicolucci Collection. Purchased,* 1870.

530. A cranium from an ancient Greek tomb at Nola (Chalcidic colony) : ♀?

C. 502, L. 175, B. 142, Bi. 811, H. 117, Hi. 669, BN. 97, BA. 101, Ai. 1041, Nh. 57, Nw. 23, Ni. 403, Ow. 38, Oh. 38, Oi. 1000, Ca. 1250.

*Nicolucci Collection. Purchased,* 1870.

531. A cranium from a very rich Greek tomb at Ruvo (Magna Græcia) : ♂.

C. 493, L. 175, B. 130, Bi. 743, H. 139, Hi. 794, BN. 96, BA. 92, Ai. 958, Nh. 52, Nw. 24, Ni. 460, Ow. 39, Oh. 30, Oi. 769, Ca. 1310.

*Nicolucci Collection. Purchased,* 1870.

* This and the three following are classed as Greek on the authority of Dr. Nicolucci.

b. *Modern.*

532. A skull from Corfu : ♂.

Marked "Cranio di un Corcirese del villaggio Europidu. Dono del Prof. Zaviziano."

C. 538, L. 195, B. 140, Bi. 718, H. 139, Hi. 713, BN. 106, BA. 103, Ai. 972, Nh. 54, Nw. 23, Ni. 426, Ow. 39, Oh. 37, Oi. 949, Ca. 1650.

*Nicolucci Collection. Purchased,* 1870.

533. A skull from Corfu : ♂.

"Nativo del villaggio Castellanos. Dono del Prof. Zaviziano."

C. 517, L. 186, B. 137, Bi. 737, H. 137, Hi. 737, BN. 107, BA. 102, Ai. 953, Nh. 55, Nw. 25, Ni. 455, Ow. 37, Oh. 30, Oi. 811, Ca. 1450.

*Nicolucci Collection. Purchased,* 1870.

534. A cranium from Corfu : ♀.

Metopic.

C. 500, L. 179, B. 134, Bi. 749, H. 125, Hi. 698, BN. 91, BA. 89, Ai. 978, Nh. 45, Nw. 22, Ni. 489, Ow. 36, Oh. 31, Oi. 861, Ca. 1230.

*Nicolucci Collection. Purchased,* 1870.

535. A cranium from Zante : ♂ ?

Metopic, but with partial consolidation from advancing age of all the calvarial sutures.

C. 505, L. 175, B. 142, Bi. 811, H. 136, Hi. 777, BN. 100, BA. 94, Ai. 940, Nh. 51, Nw. 24, Ni. 471, Ow. 37, Oh. 34, Oi. 919, Ca. 1450.

*Nicolucci Collection. Purchased,* 1870.

536. The skull of a native of the island of Paxo.

"Dono del Prof. Zaviziano."

The teeth have all been lost during life; and the calvarial sutures are nearly obliterated.

C. 490, L. 173, B. 135, Bi 780, H. 140, Hi. 809, BN. 104, Nh. 50, Nw. 25, Ni. 500, Ow. 39, Oh. 34, Oi. 872, Ca. 1290.

*Nicolucci Collection. Purchased,* 1870.

537. A skull from Tripolitza, Morea : ♂.

C. 515, L. 174, B. 148, Bi. 851, H. 134, Hi. 770, BN. 99, BA. 94, Ai. 949, Nh. 55, Nw. 29, Ni. 527, Ow. 37, Oh. 35, Oi. 946, Ca. 1580.

*Nicolucci Collection. Purchased,* 1870.

538. A skull from Tripolitza: ♂.

C. 520, L. 181, B. 147, Bi. 812, H. 134, Hi. 740, BN. 102, BA. 101, Ai. 990, Nh. 55, Nw. 27, Ni. 491, Ow. 36, Oh. 33, Oi. 717, Ca. 1500.

*Nicolucci Collection. Purchased*, 1870.

539. The cranium of an Epirote from Arta (Epirus): ♂.

From Prof. Zaviziano. The occipital region is remarkably and unsymmetrically flattened, from pressure in infancy.

C. 522, L. 175, B. 158, Bi. 903, H. 140, Hi. 800, BN. 98, BA. 91, Ai. 929, Nh. 49, Nw. 23, Ni. 469, Ow. 38, Oh. 37, Oi. 974, Ca. 1650.

*Nicolucci Collection. Purchased*, 1870.

540. The skull of an Epirote from Arta: ♂.

C. 527, L. 180, B. 153, Bi. 850, H. 139, Hi. 772, BN. 100, Nh. 49, Nw. 26, Ni. 531, Ow. 40, Oh. 33, Oi. 825, Ca. 1630.

*Nicolucci Collection. Purchased*, 1870.

541. A skull of a native of the Acroceraunian Mountains, Albania: ♀.

"Giovane di anni 24 di religione greca, nata su' monti Acrocerauni. Dono del Prof. Zaviziano."

C. 468, L. 156, B. 140, Bi. 897, H. 126, Hi. 808, BN. 88, BA. 89, Ai. 1011, Nh. 42, Nw. 22, Ni. 524, Ow. 36, Oh. 29, Oi. 806, Ca. 1255.

*Nicolucci Collection. Purchased*, 1870.

542. The cranium of a modern Greek. O. C. 5716. ♂?

C. 512, L. 183, B. 134, Bi. 732, H. 140, Hi. 765, BN. 107, BA. 104, Ai. 972, Nh. 52, Nw. 25, Ni. 482, Ow. 39, Oh. 30, Oi. 769, Ca. 1450.

*Presented by Dr. John Davy.*

543. The cranium of a Greek. O. C. 5717. ♂.

C. 509, L. 178, B. 140, Bi. 787, H. 129, Hi. 725, BN. 98, Nh. 50, Nw. 24, Ni. 480, Ow. 41, Oh. 37, Oi. 902, Ca. 1550.

*Presented by Dr. John Davy.*

## F. Central Europe.

### (The Netherlands, Germany, and Switzerland.)

544. A cast of the upper part of a cranium discovered (with other bones of the skeleton) in a limestone-cave in the Neanderthal, near Hochdal, between Düsseldorf and Elberfeld, in the year 1857.

See Prof. Schaafhausen, in Müller's Archiv, 1858, p. 543; Busk, in Nat. Hist. Review, 1861, p. 155, and elsewhere, under the name of "the Neanderthal skull." The original is now in the museum at Bonn.

C. 560; L. glabello-occipital 201, ophryo-occipital 190; B. 151, Bi. 795.

*Presented by Professor Huxley*, 1862.

545. A cast of the "Engis skull," discovered and described by Dr. Schmerling.

The original is in the museum at Liège. The circumstances under which it was found, its probable antiquity, and its characters are discussed in Lyell's 'Antiquity of Man,' Huxley's 'Man's Place in Nature,' and many other works on the same subject.

C. 530, L. 191, B. 137, Bi. 717.

*Presented by Sir Charles Lyell, Bart.*, 1868.

546. A skull from the ancient cemetery at Hallstatt, near Ischl, in the Austrian Tyrol: ♂.

The weapons and implements found in this cemetery prove it to belong to the period when bronze was being superseded by iron or steel for cutting-purposes in that part of Europe. See Von Sacken's 'Grabfeld von Hallstatt in Oberösterreich und dessen Altenthümer,' 4to, Wien, 1868.

C. 523, L. 181, B. 150, Bi. 829, H. 138, Hi. 762.

*Presented by Sir John Lubbock, Bart., and John Evans, Esq.*, 1869.

## G. The Danubian Provinces.

547. The cranium of a Servian soldier. O. C. 5714. ♂.

C. 498, L. 168, B. 144, Bi. 857, H. 130, Hi. 774, BN. 99, Nh. 50, Nw. 24, Ni. 480, Ow. 39, Oh. 35, Oi. 897, Ca. 1330.

*Presented by J. W. Gutch, Esq.*

548. The mutilated cranium of a Servian soldier. O. C. 5715.

B. 152, H. 139.

*Presented by J. W. Gutch, Esq.*

549. The cranium of a Bulgarian peasant: ♂.

A waggon-driver of the Servian army, killed in the Turco-Servian war, August 1876, between Nissa and Alexenatz.

C. 500, L. 177, B. 134, Bi. 757, H. 140, Hi. 791, BN. 99, BA. 94, Ai. 949, Nh. 46, Nw. 25, Ni. 543, Ow. 39, Oh. 32, Oi. 820, Ca. 1315.

*Presented by Armand Leslie, Esq.*, 1877.

## H. Scandinavia.

550. A cast of an ancient cranium from Bohuslän, being "the type of a class of skulls called 'dolichocephalic' by the donor." O. C. 5709.

It is figured in Nilsson's 'Primitive Inhabitants of Scandinavia,' edited by Lubbock (1868), pl. xv. figs. 253, 254, & 255, and referred to at p. 116 as found in 1843 in a shell-bed at Stångenäs, in the parish of Bro. The original is in the museum at Lund.

C. 560, L. 198, B. 146, Bi. 737.

*Presented by Professor Retzius.*

551. A cast of the cranium of an ancient inhabitant of Scandinavia, "being the type of a class of skulls called 'brachycephalic' by the donor." O. C. 5708.

It appears to be that figured in Nilsson's 'Primitive Inhabitants of Scandinavia,' edited by Lubbock (1868), pl. xii. figs. 230, 231, & 232, as "brachycephalous cranium from a gallery-grave on Möen," and referred to at p. 121 of the work.

C. 507, L. 172, B. 145, Bi. 843.

*Presented by Professor Retzius.*

552. A cast of a cranium from a gallery-grave in the island of Möen, Denmark. O. C. 5710.

"It is concluded to have belonged to an individual inhumed at a period prior to a knowledge of the working or use of metals in Denmark." Figured by Nilsson, in the work cited above, pl. xiii. fig. 240, by Retzius, 'Ethnol. Schriften,' pl. iii. fig. 2, and measured by Virchow as No. 39 in the 'Archiv für Anthrop.' iv. 1870, pp. 69 & 85.

C. 487, L. 172, B. 133, Bi. 773, H. 140, BN. 105, BA. 106, Ai. 1010, Nh. 45, Nw. 22, Ni. 489, Ow. 35, Oh. 28, Oi. 800.

*Presented by Professor Eschricht.*

553. The skull of a Lapp. O. C. 5711. ♂.

Inscribed "Lapp from Lycksele, Umea, Lappmark. Presented by Dr. Lindström, 1840." The man probably died in hospital or under medical treatment, as the calvaria has been removed in the recent state, apparently for the purpose of examining the brain. The skull is metopic, and has numerous small Wormian bones in the lambdoidal suture.

C. 530, L. 181, B. 149, Bi. 823, H. 135, Hi. 746, BN. 100, BA. 95, Ai. 950, Nh. 49, Nw. 24, Ni. 490, Ow. 41, Oh. 32, Oi. 780, Ca. 1600.

*Presented by Professor Eschricht.*

The following seven specimens of crania and bones of ancient pagan Lapps were collected by Mr. A. G. Nordvi, who, in a letter dated "Christiania, May 15th, 1878," says of them:—

"These skulls were found by myself at Mortensuœs, 70° 7′ by 46° 47′, near the head of the Varangerfjord, in East Finmark, Norway. The graves in which they were found are situated in places where tolerably large flat stones abound. They have a depth of about two yards by a width of one yard or more, and are covered by many layers of flat stones. The fact that the graves are situated in such airy, dry localities—their bottom consisting only of loose, flat stones—explains why the skulls, in spite of their great age, are so well preserved in some instances, viz. where they have not been crushed by the falling-in of the stones composing the sepulchres. This latter is very often the case; and in the course of thirty-eight years, during which I have collected Lappish antiquities, I have met with but very few graves containing tolerably good skulls."

554. The skull and almost complete skeleton of a male Lapp from East Finmark.

Clavicle 135, humerus 302, radius 234, femur 399, tibia 320.
Cranium: C. 543, L. 189, B. 160, Bi. 847, H. 141, Hi. 746, BN. 104, BA. 104, Ai. 1000, Nh. 49, Nw. 25, Ni. 510, Ow. 39, Oh. 32, Oi. 820, Ca. 1800.

*Purchased*, 1878.

555. The skull of a Lapp from East Finmark: ♂.

C. 530, L. 185, B. 151, Bi. 816, H. 124, Hi. 670, BN. 96, BA. 95, Ai. 990, Nh. 54, Nw. 23, Ni. 426, Ow. 38, Oh. 35, Oi. 921, Ca. 1475.

*Purchased*, 1878.

556. The skull of a Lapp from East Finmark: ♂.

An imperfect pelvis and some long bones accompanied the skull *.
C. 510, L. 175, B. 143, Bi. 817, H. 138, Hi. 789, BN. 106, BA. 104, Ai. 981, Nh. 50, Nw. 21, Ni. 420, Ow. 39, Oh. 34, Oi. 872, Ca. 1400.

*Purchased*, 1878.

557. The skull and some bones of a Lapp from East Finmark: ♀?

The atlas articulates with the left paroccipital process. There is a large epactal bone in the supraoccipital.
C. 495, L. 175, B. 134, Bi. 766, H. 124, Hi. 709, BN. 94, BA. 95, Ai. 1011, Nh. 48, Nw. 22, Ni. 458, Ow. 38, Oh. 32, Oi. 842, Ca. 1330.

*Purchased*, 1878.

558. The skull of a Lapp from East Finmark: ♀.

A female pelvis and some long bones are with this skull.
C. 493, L. 172, B. 140, Bi. 814, H. 128, Hi. 744, BN. 95, BA. 95, Ai. 1000, Nh. 46, Nw. 22, Ni. 478, Ow. 37, Oh. 30, Oi. 811, Ca. 1300.

*Purchased*, 1878.

* Except in the case of No. 554, it is not quite certain that the bones which are placed with these skulls belong to the same individuals, though they are from the same locality.

559. The imperfect cranium of a Lapp from East Finmark : ♀.

C. 492, L. 171, B. 137, Bi. 801, H. 116, Hi. 678, BN. 98, BA. 94, Ai. 959, Nh. 46, Nw. 22, Ni. 478, Ow. 38, Oh. 34, Oi. 895.

*Purchased*, 1878.

560. The imperfect skull of a Lapp child.

The milk-teeth have been acquired, and the first two molars are coming into place. As in the last specimen, the cranium has been injured, probably by pressure after death. The basi-occipital is wanting.

*Purchased*, 1878.

## I. Russia.

561. The skull of a male Finn, a native of Christinestad, aged 32.

A sailor, who died on board the Seamen's Hospital-ship 'Dreadnought.' The skull is metopic.

C. 550, L. 196, B. 146, Bi. 745, H. 153, Hi. 781, BN. 107, BA. 104, Ai. 972, Nh. 54, Nw. 26, Ni. 481, Ow. 38, Oh. 32, Oi. 842, Ca. 1610.

*Presented by George Busk, Esq.*, 1865.

562. The cranium of a Russian soldier : ♂.

From the field of Inkermann, Crimea, 1854.

The sagittal suture is completely obliterated.

C. 517, L. 182, B. 145, Bi. 797, H. 137, Hi. 753, BN. 101, BA. 96, Ai. 950, Nh. 50, Nw. 23, Ni. 460, Ow. 36, Oh. 31, Oi. 861, Ca. 1520.

*Presented by B. Waterhouse Hawkins, Esq.*, 1862.

563. The cranium of a Russian soldier : ♂.

From a man killed at the battle of the Alma, Crimea, 1854.

C. 500, L. 175, B. 140, Bi. 800, H. 138, Hi. 789, BN. 99, BA. 97, Ai. 980, Nh. 49, Nw. 25, Ni. 510, Ow. 37, Oh. 31, Oi. 835, Ca. 1510.

*Presented*, 1870.

564. A skull from a grave in the catacombs of Panticapœum (Kertch), Crimea : ♂.

C. 520, L. 174, B. 136, Bi. 782.

*Presented by Commander J. Buchan Telfer, R.N.*, 1876.

565. An artificially deformed cranium, taken by the donor from an ancient tomb at Mtzhetha, near Tiflis, Georgia, January 1873.

Described and figured in the 'Journal of the Anthropological Institute,' vol. iv. p. 57, pl. iv. It belonged to one of the people spoken of by Hippocrates as "Macrocephali." The deformity is produced by compressing-bandages passing round the forehead and occiput, shortening and narrowing the head, and abnormally elevating the vertex. See K. E. von Baer, "Die Macrokephalen im Boden der Krym und Oesterreichs," Mém. Acad. St. Pétersbourg, ii. (1860).

C. 447, L. 157, B. 130, Bi. 828, H. 165, Hi. 1051.

*Presented by Commander J. Buchan Telfer, R.N.*, 1876.

## 2. *NORTH AFRICA.*

### A. The Canary Islands.

566. The desiccated body of a male Guanche from one of the ancient sepulchres in the island of Teneriffe.

*British Museum. Purchased.*

567. The skull of a Guanche from the island of Gran Canaria : ♂. O. C. 5568.

C. 545, L. 191, B. 143, Bi. 749, H. 140, Hi. 733, BN. 104, BA. 98, Ai. 952, Nh. 55, Nw. 25, Ni. 455, Ow. 40, Oh. 35, Oi. 875, Ca. 1625.

*Presented by Sir George Grey,* 1846.

568. The skull of a Guanche from Teneriffe : ♂.

Sent to the donor direct from the island.

C. 540, L. 190, B. 146, Bi. 768, H. 140, Hi. 737, BN. 100, BA. 97, Ai. 970, Nh. 52, Nw. 25, Ni. 482, Ow. 42, Oh. 34, Oi. 810, Ca. 1600.

*Presented by F. Le Gros Clark, Esq.,* 1875.

569. The skull of a Guanche from Teneriffe : ♂.

C. 522, L. 189, B. 140, Bi. 741, H. 133, Hi. 704, BN. 99, BA. 97, Ai. 980, Nh. 45, Nw. 25, Ni. 555, Ow. 39, Oh. 30, Oi. 769, Ca. 1470.

*Presented by Archibald Hamilton, Esq.,* 1870.

570. The cranium of a Guanche from Teneriffe : ♂.

This and the two following were brought to the donor, from an ancient sepulchre in Teneriffe, by Miss Haig.

C. 525, L. 186, B. 146, Bi. 785, H. 134, Hi. 720, BN. 99, BA. 98, Ai. 990, Nh. 51, Nw. 23, Ni. 451, Ow. 43, Oh. 32, Oi. 744, Ca. 1450.

*Presented by Sir John Lubbock, Bart.,* 1868.

571. The cranium of a Guanche from Teneriffe : ♂.

C. 505, L. 178, B. 140, Bi. 787, H. 132, Hi. 742, BN. 102, BA. 101, Ai. 990, Nh. 47, Nw. 24, Ni. 511, Ow. 38, Oh. 29, Oi. 763, Ca. 1425.

*Presented by Sir John Lubbock, Bart.,* 1868.

572. The cranium of a young Guanche from Teneriffe.

The basilar suture is open. All the permanent teeth have been acquired, but the last molars are not fully developed.

C. 482, L. 170, B. 132, Bi. 776, H. 122, Hi. 718, BN. 92, BA. 88, Ai. 957, Nh. 47, Nw. 20, Ni. 426, Ow. 34, Oh. 34, Oi. 1000.

*Presented by Sir John Lubbock, Bart.*, 1868.

573. The imperfect skeleton of a male Guanche from Teneriffe.

It was sent to the Museum in a dried state, as found, wrapped in the remains of a goat's skin; but many of the bones (the sternum, clavicles, right humerus, nine of the ribs, and the second, third, and fourth dorsal vertebræ) had been lost.

Humerus *l.* 326, radius *l.* 239, femur 450, tibia 372.

Cranium: C. 503, L. 180, B. 137, Bi. 761, H. 130, Hi. 722, BN. 104, BA. 98, Ai. 942, Nh. 43, Nw. 21, Ni. 488, Oh. 38, Oh. 31, Oi. 816, Ca. 1380.

*Presented by Charles H. Hamilton, Esq., of Santa Cruz, Teneriffe*, 1876.

## B. Algiers and Tunis.

574. A cranium from a native burial-ground at Constantine: ♂.

This and the three following were collected by Henry Christy, Esq., in 1863.

The squamosal meets the frontal on the right side.

C. 510, L. 183, B. 130, Bi. 710, H. 140, Hi. 765, BN. 108, BA. 103, Ai. 954, Nh. 53, Nw. 25, Ni. 472, Ow. 41, Oh. 33, Oi. 805, Ca. 1430.

*Presented by George Busk, Esq.*, 1864.

575. A cranium from a native burial-ground at Constantine: ♂.

C. 532, L. 190, B. 142, Bi. 747, H. 141, Hi. 742, BN. 104, BA. 100, Ai. 962, Nh. 53, Nw. 24, Ni. 453, Ow. 40, Oh. 33, Oi. 825, Ca. 1530.

*Presented by George Busk, Esq.*, 1864.

576. A skull from a native burial-ground at Constantine: ♀.

Metopic.

C. 490, L. 174, B. 132, Bi. 759, H. 130, Hi. 747, BN. 98, BA. 95, Ai. 969, Nh. 56, Nw. 23, Ni. 411, Ow. 38, Oh. 36, Oi. 947, Ca. 1330.

*Presented by George Busk, Esq.*, 1864.

577. A mutilated calvaria from a native burial-ground at Constantine: ♂.

C. 509, L. 183, B. 137, Bi. 749.

*Presented by George Busk, Esq.*, 1864.

578. The cranium of an Arab: ♂.

Obtained by Mr. Fitton "from a Marabout Tomb of the Beni Urgine Tribe, near Bona, Algeria."

C. 487, L. 175, B. 126, Bi. 720, H. 134, Hi. 766, BN. 101, BA. 97, Ai. 960, Nh. 52, Nw. 27, Ni. 519, Ow. 39, Oh. 33, Oi. 846, Ca. 1335.

*Presented by Professor Huxley*, 1866.

579. The cranium of an Arab: ♀.

From the same locality as the last.

A remarkably small, but perfectly adult, cranium.

C. 469, L. 167, B. 129, Bi. 772, H. 120, Hi. 719, BN. 93, BA. 91, Ai. 978, Nh. 42, Nw. 23, Ni. 548, Ow. 37, Oh. 30, Oi. 811, Ca. 1110.

*Presented by Professor Huxley*, 1866.

The three following specimens were taken from an ancient tomb on the site of Carthage, by Alexander Henry Baxter, Surgeon R.N., of H.M. Ship 'Beacon.' They have not the appearance of great antiquity; and all have deep incisions in various parts, apparently sabre-cuts inflicted during life, which makes it probable that they belong to men slain in battle or victims of a massacre.

580. A cranium from Carthage: ♂.

Metopic.

C. 524, L. 185, B. 140, Bi. 757, H. 135, Hi. 730, BN. 104, BA. 97, Ai. 933, Nh. 54, Nw. 24, Ni. 444, Ow. 36, Oh. 33, Oi. 917, Ca. 1560.

*Presented by Mrs. A. H. Baxter*, 1869.

581. A cranium from Carthage: ♂.

C. 497, L. 168, B. 144, Bi. 857, H. 132, Hi. 786, BN. 100, BA. 98, Ai. 98, Nh. 49, Nw. 26, Ni. 531, Ow. 42, Oh. 34, Oi. 810, Ca. 1460.

*Presented by Mrs. A. H. Baxter*, 1869.

582. A cranium from Carthage: ♂.

The basilar suture has scarcely united; but the last molars have been acquired.

C. 503, L. 175, B. 141, Bi. 806, H. 140, Hi. 800, BN. 105, BA. 104, Ai. 990, Nh. 46, Nw. 23, Ni. 500, Ow. 39, Oh. 33, Oi. 846, Ca. 1410.

*Presented by Mrs. A. H. Baxter*, 1869.

## C. Egypt.

583. The articulated skeleton of an ancient Egyptian: male.

Prepared from a mummy obtained from Thebes, and belonging apparently to the XVIII.th dynasty (4th century B.C.), if not even later. The coverings, inscriptions, &c. are fully described by Dr. S. Birch, "On a Mummy opened at Stafford House on the 15th of July, 1875," 'Transactions of the Society of Biblical Archæology,' vol. v. 1877, p. 122; see also *ibid.* vol. iv. 1876, p. 251.

The mummy was prepared without bitumen; and the ethmoid bones were intact, showing that the brain had not been extracted through the nostril in the manner described by Herodotus, and as is generally the case with mummies from Thebes. When divested of their wrappings, the soft tissues of the body were all dry and perfectly friable, separating from the bones and crumbling at a touch. The hair that remained upon the scalp was fine, soft, and wavy, probably originally white or grey, but now stained of a yellowish-brown colour, much the same hue, in fact, as that of the dried flesh and bones and the cloths in which they were enveloped. The bones were very light and brittle, having lost much of their animal matter, and could only be made firm enough to bear the wires necessary for articulation by impregnation with gelatine. The skeleton is that of a man of short stature and considerably advanced in age. Some of the teeth have been lost during life; and the others are very much worn—the incisors almost down to the roots, as is often the case with Egyptians, probably owing to the admixture of sandy particles with their food. The left ulna has been fractured near its lower end, at some period long before death, and has reunited with scarcely any displacement. Some chronic inflammatory disease, probably of a rheumatic nature, has affected the anterior surfaces of the bodies of the two lower lumbar vertebræ and the articulation between them, leading to an irregular deposit of new bone, which has met in front of the articulation,

causing partial ankylosis. There is also a thickening of the middle of the tenth right rib, which may possibly be the effect of injury.

Height of skeleton 5 feet 2·9 inches=1598; clavicle 170; humerus, *r.* 331, *l.* 327; radius 252; femur, *r.* 441, *l.* 437; tibia 352.

Cranium: C. 533, L. 193, B. 139, Bi. 720, H. 137, Hi. 710, BN. 104, Nh. 53, Nw. 24, Ni. 453, Ow. 42, Oh. 33, Oi. 786, Ca. 1530.

*Presented by the Duke of Sutherland, K.G.*, 1875.

The ten following specimens were brought by the donor from Thebes, February 1874. As they were purchased from the Arabs who frequent the tombs of the ancient necropolis on the west bank of the river, the exact localities or dates at which they were buried could not be traced; but they were all genuine ancient mummy heads, and were mostly still enveloped in their wrappings. They all, in the injury to the ethmoid bones, confirm the statement of Herodotus, in his description of the method of embalming practised by the Ancient Egyptians, that, "in the first place, with an iron hook they draw out the brain through the nostrils, and fill up the vacuum by injecting drugs."

584. The skull of an ancient Egyptian from Thebes: ♂.

C. 525, L. 194, B. 135, Bi. 696, H. 137, Hi. 706, BN. 106, BA. 99, Ai. 934, Nh. 55, Nw. 26, Ni. 473, Ow. 40, Oh. 34, Oi. 850, Ca. 1590.

*Presented by Professor Flower*, 1874.

585. The skull of an ancient Egyptian from Thebes: ♂.

The teeth are much worn, and the cranial sutures partially consolidated.

C. 512, L. 185, B. 140, Bi. 757, H. 135, Hi. 730, BN. 100, BA. 97, Ai. 970, Nh. 54, Nw. 30, Ni. 556, Ow. 40, Oh. 30, Oi. 750, Ca. 1390.

*Presented by Professor Flower*, 1874.

586. The skull of an ancient Egyptian from Thebes: ♂.

C. 516, L. 180, B. 142, Bi. 789, H. 130, Hi. 722, BN. 100, BA. 90, Ai. 900, Nh. 50, Nw. 25, Ni. 500, Ow. 39, Oh. 31, Oi. 795, Ca. 1380.

*Presented by Professor Flower*, 1874.

587. The skull of an ancient Egyptian from Thebes : ♂.

C. 508, L. 178, B. 140, Bi. 787, H. 129, Hi. 725, BN. 97, BA. 87, Ai. 897, Nh. 51, Nw. 26, Ni. 510, Ow. 41, Oh. 31, Oi. 756, Ca. 1475.

*Presented by Professor Flower*, 1874.

588. The skull of an ancient Egyptian from Thebes : ♂.

C. 515, L. 183, B. 138, Bi. 754, H. 137, Hi. 749, BN. 96, BA. 98, Ai. 1021, Nh. 48, Nw. 26, Ni. 542, Ow. 37, Oh. 34, Oi. 919.

*Presented by Professor Flower*, 1874.

589. The skull of an ancient Egyptian from Thebes: ♀.

A large but thin-walled and feminine-looking skull. Metopic.

C. 517, L. 182, B. 141, Bi. 775, H. 130, Hi. 714, Nh. 49, Nw. 23, Ni. 469, Ow. 38, Oh. 38, Oi. 1000, Ca. 1390.

*Presented by Professor Flower*, 1874.

590. The skull of an ancient Egyptian from Thebes : ♀.

From an old person. The sagittal suture is completely, and the frontal partially consolidated. The bones of the calvaria and face are greatly atrophied.

C. 494, L. 180, B. 126, Bi. 700, H. 125, Hi. 694, BN. 94, Ow. 40, Oh. 32, Oi. 800, Ca. 1200.

*Presented by Professor Flower*, 1874.

591. The skull of an ancient Egyptian from Thebes : ♀.

C. 490, L. 179, B. 127, Bi. 709, H. 125, Hi. 698, BN. 94, BA. 91, Ai. 968, Nh. 47, Nw. 24, Ni. 511, Ow. 40, Oh. 32, Oi. 800, Ca. 1220.

*Presented by Professor Flower*, 1874.

592. The skull of an ancient Egyptian from Thebes : ♀.

C. 496, L. 182, B. 130, Bi. 714, H. 133, Hi. 731, BN. 101, BA. 99, Ai. 980, Nh. 49, Nw. 24, Ni. 490, Ow. 38, Oh. 34, Oi. 895, Ca. 1350.

*Presented by Professor Flower*, 1874.

593. The skull of an ancient Egyptian child from Thebes.

All the milk-teeth are in place.

C. 450, L. 160, B. 125, Bi. 781.

*Presented by Professor Flower*, 1874.

594. The skull of an ancient Egyptian, taken from a mummy: ♀. O. C. 5565.

C. 490, L. 172, B. 137, Bi. 797, H. 131, Hi. 762, BN. 92, BA. 89, Ai. 967, Nh. 46, Nw. 22, Ni. 478, Ow. 37, Oh. 32, Oi. 865, Ca. 1290.

*Purchased from Dr. Vesalius Pettigrew*, 1853.

595. The preserved head of an ancient Egyptian female from Thebes.

It was obtained from an Arab at Medeenet Habou in 1875. The original appearance of the face is reproduced in some composition, covered with cloth, on which the eyes, eyebrows, &c. are painted. The covering has been stripped from the upper part of the scalp; but much of the hair remains. A necklace of blue beads encircles the throat.

L. 188, B. 143, Bi. 761 (approximate).

*Presented by Admiral Sir Erasmus Ommaney*, 1875.

596. The left foot of an Egyptian mummy in its wrappings, from Thebes.

It preserves its natural conformation, undistorted by shoes. The second toe is slightly longer than the first.

*Presented by Admiral Sir Erasmus Ommaney*, 1875.

596 A. The hand of an Egyptian mummy from Thebes.

*Presented by Admiral Sir Erasmus Ommaney*, 1875.

597. The cranium of an ancient Egyptian from Thebes: ♂.

This skull, though that of a mummy, was not prepared with bitumen, and, as in many of the following, has the ethmoid bones intact, showing that the brain could not have been extracted in the manner described above.

C. 510, L. 183, B. 137, Bi. 749, H. 131, Hi. 716, BN. 101, BA. 100, Ai. 990, Nh. 49, Nw. 25, Ni. 510, Ow. 40, Oh. 31, Oi. 775, Ca. 1370.

*Presented by Lady Franklin*, 1854.

598. The calvaria of an ancient Egyptian from Thebes: ♂.

Inscribed "May 2nd, 1830."

C. 500, L. 178, B. 132, Bi. 742.

*Presented by Lady Franklin*, 1854.

599. The skull of an ancient Egyptian : ♀.

Taken from a mummy found by the donor in a tomb within the precincts of the Rameseum at Thebes.

C. 493, L. 173, B. 135, Bi. 780, H. 132, Hi. 763, BN. 98, BA. 92, Ai. 939, Nh. 50, Nw. 26, Ni. 520, Oh. 41, Ow. 36, Oi. 878.

*Presented by Joseph Bonomi, Esq.*

600. The skull of an ancient Egyptian, taken from a mummy brought from Thebes by Mr. Bonomi: ♀. O. C. 5564.

Metopic.

C. 485, L. 173, B. 130, Bi. 751, H. 128, Hi. 740, BN. 96, BA. 92, Ai. 958, Nh. 51, Nw. 26, Ni. 510, Ow. 40, Oh. 36, Oi. 900, Ca. 1180.

*Presented by C. H. Rogers Harrison, Esq.*, 1848.

601. The skull of an ancient Egyptian: ♀.

From a mummy found in a baked-clay coffin at Koum Ombos, Upper Egypt, in 1877.

C. 497, L. 178, B. 134, Bi. 753, H. 133, Hi. 747, BN. 102, BA. 97, Ai. 951, Nh. 49, Nw. 25, Ni. 510, Ow. 37, Oh. 36, Oi. 973, Ca. 1350.

*Presented by W. S. A. Griffith, Esq.*, 1878.

602. The skull of an ancient Egyptian, taken from a mummy: ♂. O. C. 5566.

C. 517, L. 185, B. 142, Bi. 768, H. 141, Hi. 762, BN. 102, BA. 97, Ai. 951, Nh. 50, Nw. 25, Ni. 500, Ow. 39, Oh. 33, Oi. 846, Ca. 1600.

*Presented by Dr. B. C. Henderson*, 1822.

603. The bitumenized head of a female mummy.

"A priestess of Isis." From the necropolis of Memphis at Sakkara. The long hair remains; and the face has been gilded.

*Presented by W. Lockhart, Esq.*, 1870.

604. The skull of an ancient Egyptian of Memphis : ♂.

From a mummy found by the donor in a tomb close to the larger pyramid of Sakkara in 1871.

Most of the teeth have been lost during life; and the frontal and sagittal sutures are partially consolidated. There is an unusually large Wormian bone in the right side of the lambdoidal

suture, and another at the posterior end of the sagittal. The left squamosal joins the frontal. On the right side there is an interposed epipteric bone.

C. 498, L. 179, B. 139, Bi. 777, H. 134, Hi. 749, BN. 100, Nh. 53, Nw. 22, Ni. 415, Ow. 40, Oh. 34, Oi. 850, Ca. 1340.

*Presented by Edward A. Goodall, Esq.*, 1873.

605. A cranium from the ancient Necropolis at Sakkara : ♀.

Obtained at the same time and from the same locality as the last.

C. 490, L. 172, B. 135, Bi. 785, H. 118, Hi. 686, BN. 94, BA. 94, Ai. 1000, Nh. 49, Nw. 22, Ni. 449, Ow. 36, Oh. 34, Oi. 944, Ca. 1280.

*Presented by E. A. Goodall, Esq.*, 1878.

606. A cranium from the Eastern Necropolis, Sakkara : ♂.

Obtained in 1878. See Journ. Anthrop. Inst. vol. viii. p. 320 (M)*.

C. 507, L. 179, B. 139, Bi. 777, H. 130, Hi. 726, BN. 99, BA. 98, Ai. 990, Nh. 50, Nw. 23, Ni. 460, Ow. 38, Oh. 33, Oi. 868, Ca. 1420.

*Purchased*, 1879.

607. A cranium from the Eastern Necropolis, Sakkara : ♂.

Obtained in 1878. *Loc. cit.* p. 324 (F).

C. 512, L. 180, B. 142, Bi. 789, H. 129, Hi. 717, BN. 106, BA. 98, Ai. 925, Nh. 55, Nw. 27, Ni. 491, Ow. 40, Oh. 35, Oi. 875, Ca. 1400.

*Purchased*, 1879.

608. The skull of an ancient Egyptian : ♀.

Obtained by Captain R. F. Burton, at the Tomb of Numbers, Pyramids of Ghizeh, Nov. 11, 1877. In this skull, as in those from Thebes, the brain has been extracted through the ethmoid bone. *Loc. cit.* p. 318 and p. 320 (N).

C. 490, L. 171, B. 138, Bi. 807, H. 133, Hi. 778, BN. 98, BA. 94, Ai. 959, Nh. 46, Nw. 20, Ni. 435, Ow. 36, Oh. 34, Oi. 944, Ca. 1350.

*Purchased*, 1879.

* This and the following seven specimens are referred to in the 'Journal of the Anthropological Institute,' vol. viii. (1879), in the following communications:—R. F. Burton, "Stones and Bones from Egypt and Midian;" C. Carter Blake, "Notes on Skulls brought by Captain Burton from the East;" Prof. Owen, "Observations on the Collection of Skulls sent by Captain Burton to the British Museum, Sept. 1878."

609. The mutilated cranium of an ancient Egyptian.

This was from the head of a mummy prepared in the same manner as the last, with which it was obtained. *Loc. cit.* p. 320 (Q).

C. 508, L. 182, B. 135, Bi. 742, Ow. 37, Oh. 32, Oi. 865.

*Purchased*, 1879.

610. A mutilated cranium from the Necropolis of Ghizeh : ♀.

Obtained from the same locality and at the same time as the last two. *Loc. cit.* p. 319 (P).

C. 514, L. 183, B. 138, Bi. 754, H. 122, Hi. 667, BN. 98, Ow. 38, Oh. 31, Oi. 816, Ca. 1375.

*Purchased*, 1879.

611. The skull of an ancient Egyptian : ♂.

Obtained at the Pyramids of Ghizeh by Captain Burton, April 29, 1878. *Loc. cit.* p. 318 and 324 (D). The brain has been extracted through the ethmoid bone.

It has a very large independent ossification in the right side of the supraoccipital, bounded above by the lambdoidal suture.

C. 520, L. 185, B. 140, Bi. 757, H. 140, Hi. 757, BN. 103, BA. 91, Ai. 883, Nh. 54, Nw. 24, Ni. 444, Ow. 41, Oh. 37, Oi. 902, Ca. 1575.

*Purchased*, 1879.

612. The calvaria of an ancient Egyptian : ♀.

Obtained with the last. *Loc. cit.* p. 319 (O). It has been prepared with bitumen. Metopic.

C. 498, L. 179, B. 131, Bi. 732, H. 132, Hi. 737.

*Purchased*, 1879.

613. A cranium from the Necropolis of Ghizeh : ♂.

Obtained at the same time with the two last. *Loc. cit.* pp. 318 and 324 (E).

C. 505, L. 179, B. 137, Bi. 765, H. 134, Hi. 749, BN. 98, BA. 95, Ai. 969, Nh. 54, Nw. 23, Ni. 426, Ow. 39, Oh. 34, Oi. 872, Ca. 1455.

*Purchased*, 1879.

614. The skull of an ancient Egyptian taken from a mummy : ♂.

As in the mummy of Horseisi in the Museum, oval pieces of some white porcellaneous material were placed in the eyes, one of which remains. The teeth are much worn; and the calvarial sutures are partially obliterated.

C. 510, L. 183, B. 138, Bi. 754, H. 133, Hi. 727, BN. 101, BA. 93, Ai. 921, Nh. 49, Nw. 24, Ni. 490, Ow. 39, Oh. 34, Oi. 872, Ca. 1380.

*Purchased*, 1873.

615. A cranium of an Egyptian mummy : ♀. O. C. 5567.

"Taken out of the old quarries of the Mokattam Mountains, from whence the stones were hewn from which the pyramids of Memphis are constructed."

C. 492, L. 178, B. 127, Bi. 713, H. 136, Hi. 764, BN. 100, BA. 94, Ai. 94, Nh. 47, Nw. 25, Ni. 532, Ow. 39, Oh. 32, Oi. 820, Ca. 1230.

*Presented by Sir John Bowring*, 1838.

616. A skull taken by the donor from a tomb near the great Pyramid of Ghizeh : ♂.

Metopic.

C. 501, L. 175, B. 140, Bi. 800, H. 130, Hi. 743, BN. 106, BA. 95, Ai. 896, Nh. 53, Nw. 27, Ni. 509, Ow. 39, Oh. 34, Oi. 872.

*Presented by S. Edwin Solly, Esq.*, 1869.

617. The skull of an Arab : ♀.

Obtained by Dr. Michael Foster in 1860 from a native burial-ground on an island in the straits of Jubal, Gulf of Suez.

C. 494, L. 177, B. 134, Bi. 757, H. 127, Hi. 718, BN. 98, BA. 96, Ai. 980, Nh. 47, Nw. 25, Ni. 532, Ow. 38, Oh. 30, Oi. 789, Ca. 1275.

*Presented by George Busk, Esq.*, 1869.

## 3. *ASIA.*

### A. Turkey, Syria, and Arabia.

618. A cranium from a Mussulman tomb in the cemetery at Scutari, Constantinople : ♂.

Obtained by Morrison Knight, Esq., Staff Civil Surgeon, Crimean War.

C. 509, L. 171, B. 153, Bi. 895, H. 147, Hi. 860, BN. 94, BA. 96, Ai. 1021, Nh. 54, Nw. 23, Ni. 426, Ow. 38, Oh. 38, Oi. 1000, Ca. 1640.

*Presented by Edward Stanley, Esq.*, 1856.

619. A cranium of an Asiatic Turk : ♂. O. C. 5563.

C. 530, L. 178, B. 152, Bi. 854, H. 136, Hi. 764, BN. 100, BA. 88, Ai. 880, Nh. 52, Nw. 25, Ni. 482, Ow. 41, Oh. 36, Oi. 878, Ca. 1640.

*Purchased.*

620. A cranium brought by the donor from the monastery of Santa Saba, near Bethlehem : ♂.

"It belonged to one of a large number of Christians said to have been massacred by the Saracens in the eighth century, the skulls of whom are collected in a charnel house adjoining the chapel of the monastery."

The right upper canine is retained in the alveolus.

C. 507, L. 182, B. 134, Bi. 736, H. 137, Hi. 753, BN. 104, BA. 96, Ai. 923, Nh. 50, Nw. 29, Ni. 580, Ow. 40, Oh. 31, Oi. 775, Ca. 1410.

*Presented by Admiral Sir Erasmus Ommaney*, 1862.

The three following specimens were brought to England by the Rev. William Wright, long a Missionary at Damascus. See "Observations on the Collection of Skulls sent by Capt. Burton to the British Museum, September 1878," by Prof. Owen, 'Journal of the Anthropological Institute,' vol. viii. (1879) p. 323.

621. A mutilated cranium from Palmyra : ♂.

*Loc. cit.* (A).

Nh. 53, Nw. 26, Ni. 491, Ow. 41, Oh. 36, Oi. 878.

*Purchased*, 1879.

622. A cranium from Palmyra : ♀.

*Loc. cit.* (b).

C. 474, L. 170, B. 126, Bi. 741, H. 118, Hi. 694, BN. 93, BA. 92, Ai. 989, Nh. 49, Nw. 23, Ni. 469, Ow. 38, Oh. 32, Oi. 842, Ca. 1145.

*Purchased*, 1879.

623. The cranium of a child from Palmyra.

*Loc. cit.* (c). The milk-dentition only was in place. The basioccipital, the nasals, and the left malar bones are lost.

C. 436, L. 157, B. 119, Bi. 758, Nh. 34, Nw. 18, Ni. 529, Ow. 33, Oh. 29, Oi. 878.

*Purchased*, 1879.

624. A cranium from an ancient tomb in Sinai : ♂ ?

"Probably that of a Monk."

C. 502, L. 182, B. 134, Bi. 74, H. 134, Hi. 74, BN. 103, Nh. 47, Ow. 36, Oh. 32, Oi. 889, Ca. 1300.

*Presented by the Sinai Survey Expedition, per the Rev. F. W. Holland*, 1870.

625. A calvaria, found with others of similar form buried in a "jorf," or bed of alluvial deposit in Sinai.

It is almost scaphocephalic in form, but without sagittal synostosis.

C. 485, L. 181, B. 119, Bi. 657, H. 121, Hi. 669, Ca. 1100.

*Presented by the Sinai Survey Expedition, per the Rev. F. W. Holland*, 1870.

The three following specimens from South Midian were collected by Captain R. F. Burton in 1878. See 'Journal of the Anthropological Institute,' vol. viii. (1879).

626. A cranium found upon the shore at Sharm Dumayghah, 30 miles north of El-Wijh : ♂.

Captain Burton adds, "it evidently belonged to some adjoining cemetery of the Bedawin," *loc. cit.* p. 319 and p. 320 (e).

C. 530, L. 195, B. 134, Bi. 687, H. 144, Hi. 738, BN. 113, BA. 109, Ai. 964, Nh. 55, Nw. 24, Ni. 436, Ow. 43, Oh. 37, Oi. 860, Ca. 1550.

*Purchased*, 1879.

627. A cranium from "the graves lying behind the classical temple or shrine on the southern bank of the Wady El-Hamz, the boundary between Egypt and the Hejaz."

Described and figured by Mr. Busk, "Notes on a Skull termed 'Nabathean,'" *loc. cit.* p. 321, pl. ix.; see also p. 320 (J).

C. 517, L. 190, B. 135, Bi. 711, H. 130, Hi. 684, BN. 103, BA. 105, Ai. 1019, Nh. 52, Nw. 26, Ni. 500, Ow. 38, Oh. 33, Oi. 868, Ca. 1330.

*Purchased*, 1879.

628. The cranium of a young person from the same locality.

*Loc. cit.* p. 321 (K). The basilar suture is still open. All the permanent teeth are in place, except the third molars. The general characters are very similar to those of the last.

C. 483, L. 178, B. 125, Bi. 702, H. 125, Hi. 702, BN. 98, BA. 93, Ai. 949, Nh. 47, Nw. 23, Ni. 489, Ow. 36, Oh. 31, Oi. 861.

*Purchased*, 1879.

629. The cranium of an Arab: ♂. O. C. 5562.

The upper part of the supraoccipital forms a detached "epactal" bone.

C. 510, L. 180, B. 143, Bi. 794, H. 133, Hi. 739, BN. 96, BA. 93, Ai. 969, Nh. 51, Nw. 25, Ni. 490, Ow. 38, Oh. 31, Oi. 816, Ca. 1470.

*Astley-Cooper Collection. Purchased*, 1843.

## B. India.

630. A skull described as that of a male Afghan. O. C. 5540.

It more resembles, especially in its facial characters, the skull of one of the Mongolian races than that of a true Afghan.

C. 485, L. 165, B. 137, Bi. 830, H. 134, Hi. 812, BN. 109, BA. 111, Ai. 1018, Nh. 50, Nw. 27, Ni. 540, Ow. 39, Oh. 35, Oi. 897, Ca. 1230.

*Purchased from Mr. George Evans*, 1840.

631. The cranium of a Patân Mussulman: ♂. O. C. 5561.

From an insane individual, imprisoned on account of homicide, and confined in the lunatic asylum at Calcutta.

C. 484, L. 169, B. 136, Bi. 805, H. 127, Hi. 751, BN. 100, BA. 100, Ai. 100, Nh. 50, Nw. 25, Ni. 500, Ow. 40, Oh. 36, Oi. 900, Ca. 1275.

*Purchased from Mr. M. George Evans*, 1840.

632. The cranium of a Mussulman from the Province of Delhi: ♂. O. C. 5560.

C. 512, L. 189, B. 125, Bi. 661, H. 132, Hi. 698, BN. 102, Nh. 52, Nw. 25, Ni. 482, Ow. 38, Oh. 34, Oi. 895, Ca. 1330.

*Presented by Dr. G. M. Paterson* *, 1823.

633. The cranium of a Mussulman from the province of Behar, Hindustan. O. C. 5559.

C. 476, L. 169, B. 132, Bi. 781, H. 132, Hi. 781, BN. 96, BA. 95, Ai. 990, Nh. 45, Nw. 24, Ni. 533, Ow. 38, Oh. 34, Oi. 895, Ca. 1270.

*Presented by Dr. George M. Paterson*, 1823.

634. A cast of the cranium of a Gound, from the banks of the Jumna, near Kalpi: ♂.

The original is in the Anthropological Gallery of the Museum of Natural History at Paris (Coll. Diard). It is figured in the 'Crania Ethnica' of Quatrefages and Hamy, pl. xxviii.

C. 505, L. 188, B. 127, Bi. 676, H. 134, Hi. 713.

*Presented by the "Professeurs Administrateurs du Musée d'Histoire Naturelle à Paris," per M. de Quatrefages*, 1877.

635. The skull of a low-cast Hindu, who was a Thug: ♂. O. C. 5542.

He was murdered in jail by his fellow prisoners, the skull, which is extremely thin, having been extensively shattered by a blow with a brass drinking-vessel.

The squamosals meet the frontals on both sides. There is very marked dental prognathism.

C. 475, L. 165, B. 130, Bi. 788, H. 132, Hi. 800, BN. 98, BA. 95, Ai. 969, Nh. 48, Nw. 22, Ni. 458, Ow. 37, Oh. 33, Oi. 892.

*Purchased*, 1840.

* Author of "An Essay on the Construction of the Asiatic Cranium," Trans. Phrenological Society of Edinburgh, vol. i.

636. The skull of a male Hindu of the Coolie cast. O. C. 5541.

There are two canine teeth on the right side of the upper jaw.

C. 483, L. 175, B. 130, Bi. 743, H. 135, Hi. 771, BN. 101, BA. 104, Ai. 1030, Nh. 48, Nw. 24, Ni. 500, Ow. 37, Oh. 32, Oi. 865, Ca. 1270.

*Presented by Dr. G. M. Paterson,* 1823.

637. The cranium of a Hindu, from Mianipore, Bengal: ♂. O. C. 5554.

C. 512, L. 188, B. 132, Bi. 702, H. 135, Hi. 718, BN. 105, BA. 97, Ai. 924, Nh. 51, Nw. 22, Ni. 431, Ow. 36, Oh. 35, Oi. 972, Ca. 1420.

*Astley-Cooper Collection. Purchased,* 1843.

638. The cranium of a Hindu: ♂.

C. 481, L. 170, B. 131, Bi. 771, H. 126, Hi. 741, BN. 99, BA. 104, Ai. 1051, Nh. 51, Nw. 24, Ni. 471, Ow. 37, Oh. 35, Oi. 946, Ca. 1075.

*In Museum before* 1862. *No further history.*

639. The cranium of a Hindu: ♂.

C. 468, L. 165, B. 132, Bi. 800, H. 127, Hi. 770, BN. 96, BA. 95, Ai. 990, Nh. 47, Nw. 22, Ni. 468, Ow. 33, Oh. 32, Oi. 970, Ca. 1180.

*In Museum before* 1862.

640. The cranium of a Hindu: ♂.

C. 500, L. 177, B. 130, Bi. 734, H. 134, Hi. 757, BN. 101, BA. 100, Ai. 990, Nh. 53, Nw. 25, Ni. 472, Ow. 38, Oh. 34, Oi. 895, Ca. 1410.

*In Museum before* 1862.

641. The skull of a female Hindu. O. C. 5545.

C. 462, L. 167, B. 124, Bi. 743, H. 130, Hi. 778, BN. 95, BA. 94, Ai. 989, Nh. 45, Nw. 22, Ni. 489, Ow. 36, Oh. 31, Oi. 861, Ca. 1110.

*This and the seven following specimens were purchased from Mr. George Evans,* 1840.

642. The skull of a young female Hindu. O. C. 5544.

The basilar suture is not closed. All the permanent teeth are in place, except the third molars.

C. 476, L. 163, B. 140, Bi. 859, H. 134, Hi. 822, BN. 96, BA. 92, Ai. 958, Nh. 45, Nw. 20, Ni. 444, Ow. 37, Oh. 33, Oi. 892.

*Purchased,* 1840.

643. The cranium of a young Hindu native of Bengal. O. C. 5553.

The second permanent molars are just rising into place.

C. 467, L. 166, B. 130, Bi. 783, H. 129, Hi. 777, BN. 87, BA. 83, Ai. 954, Nh. 38, Nw. 20, Ni. 526, Ow. 33, Oh. 29, Oi. 879.

*Purchased*, 1840.

644. The skull of a Hindu youth, aged thirteen years. O. C. 5546.

The milk-teeth are all shed except the last molars of the lower jaw. The second permanent molars are not yet in place.

C. 485, L. 171, B. 140, Bi. 819, H. 124, Hi. 725, BN. 89, BA. 82, Ai. 910, Nh. 41, Nw. 23, Ni. 561, Ow. 36, Oh. 30, Oi. 833.

*Purchased*, 1840.

645. The skull of a Hindu child, aged six and a half years. O. C. 5547.

The first permanent molars, all the lower and the central upper incisors are in place.

C. 465, L. 167, B. 126, Bi. 754, H. 126, Hi. 754, BN. 86, BA. 79, Ai. 919, Nh. 37, Nw. 19, Ni. 513, Ow. 32, Oh. 31, Oi. 969.

*Purchased*, 1840.

646. The skull of a Hindu child, aged two and a half years. O. C. 5548.

All the milk-teeth are in place. The germs of the permanent teeth have been exposed.

C. 436, L. 154, B. 126, Bi. 818, H. 107, Hi. 695, BN. 74, BA. 72, Ai. 973, Nh. 33, Nw. 18, Ni. 545, Ow. 30, Oh. 29, Oi. 967.

*Purchased*, 1840.

647. The skull of a Hindu child, aged two and a half years. O. C. 5549.

All the milk-teeth are in place.

C. 435, L. 157, B. 122, Bi. 777, Nh. 30, Nw. 18, Ni. 600, Ow. 30, Oh. 28, Oi. 933.

*Purchased*, 1840.

648. The skull of a Hindu child, two years old. O. C. 5550.

The milk-teeth are in place. The anterior fontinelle is not closed. The right temporal, malar, maxillary, and nasal bones are lost.

C. 425, L. 151, B. 122, Bi. 808.

*Purchased*, 1840.

649. The cranium of a Hindu child. O. C. 5558.

The milk-dentition is in place. There are numerous Wormian bones in the lambdoidal suture, others in the squamoso-parietal sutures, in the right side of the coronal, and in the right pterion. The premaxillary sutures are very distinct in the palate.

C. 440, L. 160, B. 122, Bi. 763.

*Purchased.*

650. The cranium of a Hindu child. O. C. 5551.

This is stated to have been from an idiot. All the milk-teeth are in place; and the first permanent molars have just risen to the surface of the alveolus.

C. 425, L. 146, B. 128, Bi. 876, H. 115, Hi. 788, BN. 72, BA. 73, Ai. 101, Nh. 35, Nw. 17, Ni. 486, Ow. 31, Oh. 29, Oi. 935.

*Presented by Dr. G. M. Paterson*, 1823.

651. The cranium of a female Hindu, native of Rajpootana. O. C. 5552.

There is a complete "interparietal" bone detached from the supraoccipital.

C. 462, L. 165, B. 130, Bi. 788, H. 125, Hi. 758, BN. 89, BA. 89, Ai. 1000, Nh. 39, Nw. 21, Ni. 538, Ow. 35, Oh. 30, Oi. 857, Ca. 1100.

*Presented by Dr. G. M. Paterson*, 1823.

652. The cranium of a young Hindu from Bengal: ♂.

The basilar suture is open. The last permanent molars are just rising into place.

C. 476, L. 170, B. 135, Bi. 794, H. 127, Hi. 747, BN. 90, BA. 88, Ai. 978, Nh. 46, Nw. 22, Ni. 478, Ow. 34, Oh. 31, Oi. 912.

*Purchased*, 1863.

653. The skull of a male native of Eastern India : ♂. O. C. 5543.

C. 517, L. 180, B. 146, Bi. 811, H. 143, Hi. 794, BN. 99, BA. 97, Ai. 980, Nh. 55, Nw. 26, Ni. 473, Ow. 38, Oh. 35, Oi. 921, Ca. 1690.

*Presented by Dr. B. C. Henderson*, 1822.

The twenty following specimens are from the Madura district of the Madras Presidency, and chiefly belong to the Maravar tribe *.

654. A skull from Madura : ♂.

C. 482, L. 176, B. 129, Bi. 733, H. 131, Hi. 744, BN. 102, BA. 95, Ai. 931, Nh. 46, Nw. 23, Ni. 500, Ow. 37, Oh. 30, Oi. 811, Ca. 1250.

*Presented by Dr. John Shortt, Surgeon-Major H.M. Madras Army*, 1878.

655. A skull from Madura : ♂.

Metopic.

C. 490, L. 171, B. 134, Bi. 784, H. 126, Hi. 737, BN. 94, BA. 96, Ai. 1021, Nh. 44, Nw. 23, Ni. 523, Ow. 36, Oh. 30, Oi. 833, Ca. 1200.

*Presented by Dr. J. Shortt*, 1878.

656. A skull from Madura : ♂.

C. 474, L. 173, B. 130, Bi. 751, H. 135, Hi. 780, BN. 103, BA. 101, Ai. 981, Nh. 47, Nw. 21, Ni. 447, Ow. 39, Oh. 31, Oi. 795, Ca. 1230.

*Presented by Dr. J. Shortt*, 1878.

657. A skull from Madura : ♂?

C. 492, L. 177, B. 135, Bi. 763, H. 133, Hi. 751, BN. 97, BA. 93, Ai. 959, Nh. 43, Nw. 24, Ni. 558, Ow. 35, Oh. 33, Oi. 943, Ca. 1225.

*Presented by Dr. J. Shortt*, 1878.

658. A skull from Madura : ♂?

C. 492, L. 181, B. 127, Bi. 702, H. 129, Hi. 713, BN. 97, BA. 95, Ai. 979, Nh. 49, Nw. 24, Ni. 490, Ow. 36, Oh. 31, Oi. 861, Ca. 1275.

*Presented by Dr. J. Shortt*, 1878.

* For a description of 20 skulls of Maravars, presented by Dr. Shortt to the Museum of the Anthropological Society of Paris, see E. Callamand, "Le Crâne des noirs de l'Inde," Revue d'Anthropologie, Oct. 1878.

659. A skull from Madura : ♂.

It has numerous Wormian bones in the lambdoidal suture, one in the right coronal suture, and a large epipteric on the same side.

C. 498, L. 179, B. 136, Bi. 760, H. 138, Hi. 771, BN. 100, BA. 95, Ai. 950, Nh. 46, Nw. 23, Ni. 500, Ow. 36, Oh. 30, Oi. 833, Ca. 1390.

*Presented by Dr. J. Shortt*, 1878.

660. A skull from Madura : ♂.

C. 487, L. 178, B. 125, Bi. 702, H. 130, Hi. 730, BN. 97, BA. 101, Ai. 1041, Nh. 46, Nw. 26, Ni. 565, Ow. 37, Oh. 30, Oi. 811, Ca. 1200.

*Presented by Dr. J. Shortt*, 1878.

661. A skull from Madura : ♂.

C. 488, L. 173, B. 132, Bi. 763, H. 135, Hi. 780, BN. 93, BA. 93, Ai. 1000, Nh. 45, Nw. 25, Ni. 555, Ow. 37, Oh. 31, Oi. 838, Ca. 1350.

*Presented by Dr. J. Shortt*, 1878.

662. A skull from Madura : ♂.

C. 502, L. 180, B. 139, Bi. 772, H. 138, Hi. 767, BN. 108, BA. 103, Ai. 954, Nh. 46, Nw. 23, Ni. 500, Ow. 37, Oh. 31, Oi. 838, Ca. 1375.

*Presented by Dr. J. Shortt*, 1878.

663. A skull from Madura.

C. 490, L. 175, B. 137, Bi. 783, H. 134, Hi. 766, BN. 102, BA. 94, Ai. 922, Nh. 47, Nw. 24, Ni. 511, Ow. 36, Oh. 31, Oi. 861, Ca. 1360.

*Presented by Dr. J. Shortt*, 1878.

664. A skull from Madura.

C. 489, L. 172, B. 137, Bi. 797, H. 134, Hi. 779, BN. 93, BA. 93, Ai. 1000, Nh. 44, Nw. 22, Ni. 500, Ow. 37, Oh. 33, Oi. 892, Ca. 1380.

*Presented by Dr. J. Shortt*, 1878.

665. A skull from Madura : ♀.

All the teeth have been lost during life. The sagittal suture is partially obliterated.

C. 490, L. 174, B. 134, Bi. 770, H. 130, Hi. 747, BN. 97, Nh. 45, Nw. 22, Ni. 489, Ow. 36, Oh. 35, Oi. 972, Ca. 1220.

*Presented by Dr. J. Shortt*, 1878.

666. A skull from Madura : ♀.

All the teeth had been lost during life. The bones of the face are atrophied. The sagittal and the upper part of the coronal suture are obliterated, the lambdoidal quite open.

C. 466, L. 168, B. 118, Bi. 702, H. 129, Hi. 768, BN. 98, Ow. 36, Oh. 31, Oi. 861, Ca. 1110.

*Presented by Dr. J. Shortt*, 1878.

667. A cranium from Madura : ♂.

C. 490, L. 177, B. 130, Bi. 734, H. 138, Hi. 780, BN. 97, Nh. 44, Nw. 23, Ni. 523, Ow. 36, Oh. 30, Oi. 833, Ca. 1290.

*Presented by Dr. J. Shortt*, 1878.

668. A cranium from Madura : ♂?

C. 482, L. 173, B. 124, Bi. 717, H. 131, Hi. 757, BN. 98, BA. 99, Ai. 1010, Nh. 46, Nw. 23, Ni. 500, Ow. 38, Oh. 31, Oi. 816, Ca. 1200.

*Presented by Dr. J. Shortt*, 1878.

669. A cranium from Madura : ♂.

C. 498, L. 179, B. 135, Bi. 755, H. 135, Hi. 755, BN. 100, BA. 102, Ai. 1020, Nh. 46, Nw. 22, Ni. 478, Ow. 36, Oh. 30, Oi. 833, Ca. 1320.

*Presented by Dr. J. Shortt*, 1878.

670. A cranium from Madura : ♂.

C. 507, L. 184, B. 124, Bi. 674, H. 143, Hi. 777, BN. 99, Nh. 48, Nw. 27, Ni. 563, Ow. 38, Oh. 33, Oi. 868, Ca. 1530.

*Presented by Dr. J. Shortt*, 1878.

671. A cranium from Madura.

C. 490, L. 173, B. 139, Bi. 803, H. 127, Hi. 734, BN. 97, BA. 95, Ai. 979, Nh. 46, Nw. 24, Ni. 522, Ow. 36, Oh. 30, Oi. 833, Ca. 1200.

*Presented by Dr. J. Shortt*, 1878.

672. A cranium from Madura : ♂.

C. 470, L. 165, B. 129, Bi. 781, H. 122, Hi. 740, BN. 93, BA. 88, Ai. 946, Nh. 43, Nw. 21, Ni. 488, Ow. 35, Oh. 30, Oi. 857, Ca. 1150.

*Presented by Dr. J. Shortt*, 1878.

673. A cranium from Madura : ♀.

The squamosals join the frontals on both sides. There is great alveolar and dental prognathism.

C. 456, L. 162, B. 126, Bi. 778, H. 128, Hi. 790, BN. 93, BA. 96, Ai. 1032, Nh. 43, Nw. 21, Ni. 488, Ow. 34, Oh. 30, Oi. 882, Ca. 1100.

*Presented by Dr. J. Shortt,* 1878.

674. A skull marked " Hindoo," but with no further history : ♂.

It is remarkable for the prominence of the glabella, and other resemblances to some Australian skulls.

C. 535, L. 196, B. 132, Bi. 673, H. 135, Hi. 689, BN. 98, BA. 96, Ai. 980, Nh. 48, Nw. 25, Ni. 521, Ow. 40, Oh. 36, Oi. 900, Ca. 1460.

*In Museum before* 1862.

## C. Ceylon.

675. The cranium of a Veddah, from Bintenne : ♂. O. C. 5539.

C. 468, L. 165, B. 125, Bi. 758, H. 129, Hi. 781, BN. 93, BA. 87, Ai. 935, Nh. 43, Nw. 20, Ni. 465, Ow. 38, Oh. 33, Oi. 868, Ca. 1140.

*Presented by Colonel Hamilton Smith,* 1852.

The four following specimens were sent from Ceylon by Mr. Thwaites to Sir J. D. Hooker, by whom they were given to the donor.

676. The cranium of a Veddah : ♀.

" From Bintenne of Badulla : J. Bailey."

It has been unsymmetrically distorted by occipital pressure in infancy.

C. 460, L. 158, B. 131, Bi. 829, H. 127, Hi. 804, BN. 86, BA. 80, Ai. 930, Nh. 41, Nw. 23, Ni. 561, Ow. 37, Oh. 33, Oi. 892, Ca. 1225.

*Presented by George Busk, Esq.,* 1864.

677. The cranium of a Veddah.

" From Nilgala : J. Bailey, 1860."

The teeth have all been lost during life, and the alveoli

absorbed; but very little consolidation of the calvarial sutures has taken place.

C. 478, L. 173, B. 127, Bi. 734, H. 132, Hi. 763, BN. 99, Nh. 45, Nw. 21, 467, Ow. 38, Oh. 30, Oi. 789, Ca. 1235.

*Presented by George Busk, Esq.*, 1864.

678. The cranium of a Veddah : ♂.

"From Nilgala: J. Bailey, 1860."

C. 482, L. 176, B. 122, Bi. 693, H. 129, Hi. 733, BN. 92, BA. 93, Nh. 46, Nw. 25, Ni. 543, Ow. 36, Oh. 33, Oi. 917, Ca. 1250.

*Presented by George Busk, Esq.*, 1864.

679. The cranium of a Veddah : ♀.

This is the smallest adult skull in the collection.

C. 448, L. 166, B. 116, Bi. 699, H. 118, Hi. 711, BN. 85, BA. 82, Ai. 965, Nh. 38, Nw. 22, Ni. 578, Ow. 35, Oh. 31, Oi. 886, Ca. 960.

*Presented by George Busk, Esq.*, 1864*.

680. The skull of a Veddah : ♂.

The frontals and parietals just meet at the pterion on both sides.

C. 478, L. 173, B. 122, Bi. 705, H. 136, Hi. 786, BN. 98, BA. 95, Ai. 969, Nh. 50, Nw. 27, Ni. 540, Ow. 38, Oh. 31, Oi. 816, Ca. 1225.

*Presented by Dr. Stephen Ward*, 1864.

681. The cranium of a Veddah : ♂.

This and the next were obtained for the donor by the late Mr. J. W. Birch, Government Agent in the Eastern Province of Ceylon, and are believed to be authentic examples. They are of larger size than any of the preceding.

The squamosal just touches the frontal at the pterion on both sides.

C. 485, L. 176, B. 127, Bi. 722, H. 133, Hi. 756, BN. 102, BA. 99, Ai. 971, Nh. 48, Nw. 24, Ni. 500, Ow. 36, Oh. 29, Oi. 806, Ca. 1260.

*Presented by E. W. H. Holdsworth, Esq.*, 1879.

* See G. Busk, "Observations on some Skulls from Ceylon, said to be those of Veddahs," Proc. Linn. Soc. 1862, vi. p. 166.

682. The calvaria of a Veddah : ♂.

The lower ends of the coronal suture are consolidated; but the squamosal appears to have reached the frontal, at least on the left side.

C. 512, L. 189, B. 126, Bi. 667, H. 132, Hi. 698, Ca. 1420.

*Presented by E. W. H. Holdsworth, Esq.*, 1879.

683. A mutilated cranium, from Ceylon.

It is remarkable for the contracted condition of the foramen magnum.

C. 498, L. 180, B. 140, Bi. 778, H. 135, Hi. 750, Ow. 39, Oh. 31, Oi. 795, Ca. 1300.

*Presented by Dr. Stephen Ward*, 1864.

## D. Siberia and Central Asia.

684. The skeleton of a male Samoyede.

A well-authenticated example of the race, obtained near Mezen, North Russia. The three upper cervical vertebræ are missing. The skull is described and figured by Mr. Busk in the 'Journal of the Anthropological Institute,' vol. iii. p. 494 (1874).

It belongs to a man advanced in life. Those teeth that have not been already lost, are greatly worn; but consolidation of the calvarial sutures has only just commenced.

Height of skeleton 4 feet 11 inches = 1500, clavicle 155, humerus 312, radius 237, femur 417, tibia 342.

Cranium : C. 525, L. 178, B. 157, Bi. 882, H. 125, Hi. 702, BN. 96, BA. 97, Ai. 1010, Nh. 56, Nw. 24, Ni. 428, Ow. 40, Oh. 35, Oi. 875, Ca. 1520.

*Purchased*, 1873.

685. The skull either of a Samoyede, or of an Ostiak : ♂.

This and the next were obtained by Dr. Otto Finsch, on the 12th of August, 1876, from ancient heathen graves near Tschornejar, by the river Schtschutschja, the most northern confluent of the Ob on the left, about 67° 15′ N. lat. There was nothing in the interment to indicate to which tribe they belonged.

All the calvarial sutures are partially obliterated, and the teeth much worn.

C. 505, L. 172, B. 146, Bi. 849, H. 123, Hi. 715, BN. 96, BA. 101, Ai. 1052, Nh. 56, Nw. 24, Ni. 428, Ow. 38, Oh. 37, Oi. 974, Ca. 1380.

*Purchased*, 1878.

686. The skull of a Samoyede or an Ostiak : ♀.

From the same locality as the last.

The calvarial sutures are completely consolidated, the teeth greatly worn, and the bones affected with senile atrophy.

C. 483, L. 167, B. 141, Bi. 844, H. 123, Hi. 737, Ca. 1125.

*Purchased*, 1878.

687. The skull of a Kalmuck, obtained at Sarepta, on the Volga (Province of Astrakhan): ♀.

C. 480, L. 165, B. 139, Bi. 842, H. 126, Hi. 764, BN. 98, BA. 101, Ai. 1031, Nh. 50, Nw. 22, Ni. 440, Ow. 39, Oh. 33, Oi. 846, Ca. 1160.

*Purchased*, 1875.

688. The cranium of "a native of Tartary :" ♂. O. C. 5484.

This specimen, remarkable for its great breadth compared with its length and height, has been described and figured by Professor Huxley in a memoir "On two widely contrasted forms of the Human Cranium," in 'The Journal of Anatomy and Physiology,' vol. i. (1867) p. 60. A cast of the interior is in the collection.

The teeth are very much worn. There is no trace left of the sagittal suture, though the coronal and lambdoidal sutures are quite open.

C. 523, L. 168, B. 165, Bi. 982, H. 121, Hi. 720, BN. 93, Nh. 50, Nw. 24, Ni. 480, Ow. 41, Oh. 34, Oi. 829, Ca. 1520.

*Hunterian.*

## E. China.

689. The skull of a Chinese : ♂. O. C. 5485.

The upper part of the supraoccipital is divided into three symmetrically arranged ossicles; and there are Wormian bones in both sides of the coronal suture.

C. 502, L. 176, B. 144, Bi. 818, H. 133, Hi. 756, BN. 98, BA. 91, Ai. 929, Nh. 52, Nw. 25, Ni. 482, Ow. 36, Oh. 33, Oi. 917, Ca. 1280.

*Hunterian.*

690. The cranium of a Chinese: ♂. O. C. 5490.

C. 526, L. 187, B. 147, Bi. 786, H. 134, Hi. 717, BN. 98, BA. 96, Ai. 980, Nh. 48, Nw. 22, Ni. 458, Ow. 38, Oh. 35, Oi. 921, Ca. 1540.

*Hunterian.*

691. The cranium of a Chinese: ♂. O. C. 5491.

C. 502, L. 173, B. 143, Bi. 827, H. 132, Hi. 763, BN. 98, BA. 98, Ai. 1000, Nh. 46, Nw. 27, Ni. 587, Ow. 40, Oh. 30, Oi. 750, Ca. 1225.

*Hunterian.*

692. The skull of a male Chinese. O. C. 5487.

It was picked up in a recess amongst the basaltic rocks of Second Bar, Pagoda Hill, Canton River. The skeleton was entire and wrapped in cloth.

C. 491, L. 168, B. 142, Bi. 845, H. 137, Hi. 815, BN. 100, Nh. 52, Nw. 25, Ni. 482, Ow. 36, Oh. 36, Oi. 1000, Ca. 1435.

*Presented by Robert Auld, Esq.*, 1834.

693. The cranium of a Chinese: ♂. O. C. 5488.

Obtained from a native cemetery near Pekin, and brought to England by Mr. Dill, Surgeon H.E.I.C.S.

C. 510, L. 178, B. 144, Bi. 809, H. 140, Hi. 787, BN. 100, BA. 100, Ai. 1000, Nh. 50, Nw. 26, Ni. 520, Ow. 37, Oh. 32, Oi. 865, Ca. 1500.

*Presented by Anthony White, Esq.*, 1826.

694. The cranium of a Chinese, obtained with the last: ♂. O. C. 5489.

C. 513, L. 179, B. 147, Bi. 821, H. 132, Hi. 737, BN. 93, BA. 96, Ai. 1032, Nh. 48, Nw. 24, Ni. 500, Ow, 38, Oh. 33, Oi. 868, Ca. 1525.

*Presented by Anthony White, Esq.*, 1826.

695. The cranium of a Chinese, from a native grave at Shanghai: ♂.

C. 515, L. 186, B. 139, Bi. 747, H. 135, Hi. 726, BN. 98, BA. 94, Ai. 959, Nh. 51, Nw. 24, Ni. 471, Ow. 38, Oh. 35, Oi. 921, Ca. 1590.

*Presented by William Lockhart, Esq.*, 1858.

696. The cranium of a Chinese from Shanghai: ♂.

Metopic.

C. 485, L. 163, B. 142, Bi. 871, H. 129, Hi. 791, BN. 95, BA. 98, Ai. 1032, Nh. 52, Nw. 27, Ni. 519, Ow. 37, Oh. 33, Oi. 892, Ca. 1290.

*Presented by W. Lockhart, Esq.*, 1858.

697. The cranium of a Chinese from Shanghai: ♂.

It is laterally contracted and unsymmetrical posteriorly, probably owing to premature synostosis of the sagittal and lambdoidal sutures; for these are both consolidated, while the general condition of the skull, and especially the teeth, show that the subject was not aged. The contraction, however, does not amount to true "scaphocephaly."

C. 503, L. 185, B. 130, Bi. 703, H. 142, Hi. 768, BN. 108, BA. 105, Ai. 972, Nh. 50, Nw. 23, Ni. 460, Ow. 38, Oh. 31, Oi. 816, Ca. 1425.

*Presented by W. Lockhart, Esq.*, 1858.

698. The skull of a Chinese from Shanghai: ♂.

The upper part of the supraoccipital is separated as an epactal bone.

C. 517, L. 188, B. 137, Bi. 729, H. 140, Hi. 745, BN. 100, BA. 104, Ai. 1040, Nh. 49, Nw. 26, Ni. 531, Ow. 36, Oh. 31, Oi. 861, Ca. 1410.

*Presented by W. Lockhart, Esq.*, 1875.

699. The skull of a Chinese from Shanghai: ♂.

The sagittal and part of the lambdoidal sutures are obliterated. The coronal is remarkably simple.

C. 515, L. 180, B. 140, Bi. 778, H. 130, Hi. 722, BN. 97, BA. 95, Ai. 979, Nh. 52, Nw. 23, Ni. 442, Ow. 40, Oh. 35, Oi. 875, Ca. 1460.

*Presented by W. Lockhart, Esq.*, 1875.

700. The skull of a Chinese from Shanghai: ♂.

C. 494, L. 175, B. 137, Bi. 783, H. 130, Hi. 743, BN. 92, BA. 98, Ai. 1065, Nh. 47, Nw. 26, Ni. 553, Ow. 39, Oh. 33, Oi. 846, Ca. 1320.

*Presented by W. Lockhart, Esq.*, 1875.

701. The cranium of a Chinese : ♂.

"A Taeping rebel."

C. 513, L. 183, B. 138, Bi. 754, H. 132, Hi. 721, BN. 99, BA. 97, Ai. 980, Nh. 56, Nw. 26, Ni. 464, Ow. 38, Oh. 36, Oi. 947, Ca. 1470.

*Presented by William Bird, Esq.*, 1870.

702. The skull of a Chinese pirate : ♂. O. C. 5486.

The upper part of the supraoccipital is divided off into a pair of nearly symmetrical ossicles.

C. 515, L. 183, B. 140, Bi. 765, H. 132, Hi. 721, BN. 100, BA. 103, Ai. 1030, Nh. 53, Nw. 26, Ni. 491, Ow. 37, Oh. 34, Oi. 919, Ca. 1475.

*Presented by Dr. George Bennett.*

703. The skull of a Chinese ladrone, or pirate : ♂. O. C. 5492.

This and the following are from individuals executed for murder and piracy at Macao, in 1816.

The squamosals meet the frontals at the pterion of both sides.

C. 510, L. 186, B. 134, Bi. 720, H. 135, Hi. 726, BN. 100, BA. 98, Ai. 980, Nh. 45, Nw. 24, Ni. 533, Ow. 40, Oh. 35, Oi. 875, Ca. 1260.

*Presented by J. Reeves, Esq.*, 1821.

704. The skull of a Chinese ladrone, or pirate : ♂. O. C. 5493.

C. 522, L. 184, B. 142, Bi. 772, H. 142, Hi. 772, BN. 100, BA. 91, Ai. 910, Nh. 57, Nw. 29, Ni. 509, Ow. 35, Oh. 35, Oi. 1000, Ca. 1580.

*Presented by J. Reeves, Esq.*, 1821.

705. The cranium of a Chinese : ♀.

C. 494, L. 177, B. 135, Bi. 763, H. 127, Hi. 718, BN. 98, BA. 97, Ai. 990, Nh. 48, Nw. 25, Ni. 521, Ow. 38, Oh. 35, Oi. 921, Ca. 1365.

*Presented by Lady Franklin.*

706. The cranium of a Chinese from Shanghai : ♀.

C. 474, L. 166, B. 134, Bi. 807, H. 136, Hi. 819, BN. 96, BA. 92, Ai. 958, Nh. 50, Nw. 22, Ni. 440, Ow. 34, Oh. 34, Oi. 1000, Ca. 1230.

*Presented by Dr. J. Reay Greene*, 1879.

707. The cranium of a Chinese child from Hongkong.

All the milk-teeth are in place, but the first permanent molars have not yet attained the level of the alveolar margin.

C. 446, L. 160, B. 126, Bi. 788, H. 120, Hi. 750, BN. 80, BA. 76, Ai. 950, Nh. 36, Nw. 20, Ni. 556, Ow. 32, Oh. 31, Oi. 969.

*Presented by W. T. Black, Esq., Staff-Surgeon H.M. Army*, 1866.

708. The skull of a new-born Chinese infant from Shanghai.

C. 315, L. 107, B. 89, Bi. 832, H. 81, Hi. 757.

*Purchased*, 1873.

## F. Formosa.

709. The skull of a Formosan: ♂.

This and the following specimen are from the collection of the late Mr. Robert Swinhoe, F.R.S., H.B.M. Consul, and were both marked "Formosan: Laoulung, 1866," but with no further information; so that it is uncertain whether they belong to any of the original native races of the island, or to the descendants of Chinese immigrants.

Part of the base has been cut away, and the right ramus of the lower jaw broken, probably in the act of decapitation.

C. 520, L. 183, B. 140, Bi. 765, H. 145, Hi. 792, BN. 110, BA. 106, Ai. 964, Nh. 52, Nw. 26, Ni. 500, Ow. 36, Oh. 36, Oi. 1000, Ca. 1550.

*Purchased*, 1878.

710. The skull of a Formosan.

The sagittal suture is completely obliterated, but not from age, as the teeth show scarcely any signs of wear. There are several small Wormian bones in the coronal suture, which is otherwise very simple in character.

C. 498, L. 176, B. 132, Bi. 750, H. 128, Hi. 727, BN. 100, BA. 104, Ai. 1040, Nh. 52, Nw. 24, Ni. 460, Ow. 37, Oh. 35, Oi. 946, Ca. 1370.

*Purchased*, 1878.

## G. JAPAN.

711. The cranium of a Japanese : ♂.

From the execution-ground at Kanagawa.

C. 517, L. 187, B. 141, Bi. 754, H. 142, Hi. 759, BN. 103, BA. 102, Ai. 990, Nh. 57, Nw. 22, Ni. 386, Ow. 39, Oh. 35, Oi. 897, Ca. 1570.

*Presented by Rowland Hamilton, Esq.*, 1864.

712. The skull of a Japanese, from Yokohama : ♂.

On the right side the squamosal and frontal meet at the pterion; on the left there is an epipteric ossicle.

C. 528, L. 188, B. 143, Bi. 761, H. 140, Hi. 745, BN. 108, BA. 104, Ai. 963, Nh. 54, Nw. 24, Ni. 444, Ow. 38, Oh. 36, Oi. 947, Ca. 1510.

*Presented by Rowland Hamilton, Esq.*, 1864.

713. The skull of a Japanese : ♀.

"Bought in a medicine-shop, Kanagawa."

C. 548, L. 164, B. 123, Bi. 750, H. 124, Hi. 756, BN. 93, BA. 94, Ai. 1011, Nh. 51, Nw. 24, Ni. 471, Ow. 34, Oh. 33, Oi. 971, Ca. 1125.

*Presented by Rowland Hamilton, Esq.*, 1864.

714. The skull of a Japanese : ♂.

Though the basilar suture is closed, and the skull shows every sign of maturity, there are no molars behind the first in either jaw, nor any appearance of their having been lost, and the first upper milk-molar is retained on the right side.

C. 518, L. 185, B. 141, Bi. 762, H. 135, Hi. 730, BN. 99, BA. 97, Ai. 980, Nh. 47, Nw. 23, Ni. 489, Ow. 38, Oh. 36, Oi. 947, Ca. 1480.

*This and the four following specimens were purchased from Dr. William Willis, of Yokohama*, 1864.

715. The skull of a Japanese : ♂.

It has a small supplementary upper incisor tooth on the right side, close to the median line and behind the normal tooth.

C. 512, L. 180, B. 140, Bi. 778, H. 139, Hi. 772, BN. 103, BA. 100, Ai. 971, Nh. 55, Nw. 27, Ni. 491, Ow. 39, Oh. 32, Oi. 320, Ca. 1410.

*Purchased*, 1864.

716. The skull of a Japanese : ♂.

C. 500, L. 180, B. 135, Bi. 750, H. 135, Hi. 750, BN. 103, BA. 100, Ai. 971, Nh. 51, Nw. 26, Ni. 510, Ow. 38, Oh. 34, Oi. 895, Ca. 1415.

*Purchased*, 1864.

717. The cranium of a Japanese : ♂.

C. 525, L. 180, B. 148, Bi. 822, H. 137, Hi. 761, BN. 99, BA. 99, Ai. 1000, Nh. 54, Nw. 28, Ni. 518, Ow. 39, Oh. 39, Oi. 1000, Ca. 1530.

*Purchased*, 1864.

718. The cranium of a Japanese child.

The first permanent molars are in place.

C. 464, L. 163, B. 129, Bi. 791, H. 125, Hi. 767, BN. 87, BA. 77, Ai. 862, Nh. 40, Nw. 20, Ni. 500, Ow. 32, Oh. 31, Oi. 969.

*Purchased*, 1864.

719. A cranium, found by the donor in May 1871, at Nemoro, N.E. coast of Yezo (or Jesso) Island; probably that of an Aino : ♂?

The squamosals and frontals almost meet at the pterion. The sagittal suture is completely synostosed.

C. 513, L. 184, B. 138, Bi. 750, H. 132, Hi. 717, BN. 106, BA. 105, Ai. 991, Nh. 48, Nw. 30, Ni. 625, Ow. 42, Oh. 33, Oi. 786, Ca. 1400.

*Presented by Lieut. Swinton C. Holland, R.N.*, 1873.

720. The cranium of an Aino, from the island of Yezo : ♂.

A perfectly authenticated example of the race. It is described and figured by Mr. Busk in Trans. Ethnol. Soc. n. s., vol. vi. p. 109 (1868).

C. 545, L. 197, B. 142, Bi. 721, H. 142, Hi. 721, BN. 110, BA. 106, Ai. 964, Nh. 49, Nw. 25, Ni. 510, Ow. 42, Oh. 33, Oi. 786, Ca. 1630.

*Presented by George Busk, Esq.*, 1867.

## H. BURMAH.

721. The skull of a Burmese : ♂.

"A noted dacoit, or robber, captured near Tonghoo, on the frontiers of Burmah, by Colonel Lloyd, Deputy Commissioner, in a personal encounter, not before he had waylaid and murdered no less than thirteen people."

C. 490, L. 166, B. 144, Bi. 867, H. 134, Hi. 807, BN. 94, BA. 90, Ai. 957, Nh. 52, Nw. 23, Ni. 442, Ow. 37, Oh. 35, Oi. 946, Ca. 1350.

*Presented by R. J. Wardlaw-Ramsay, Esq.*, 1877.

The three following crania were obtained and brought to England by the late Mr. John Crawford, F.R.S.

722. The cranium of a Burmese : ♂.

C. 528, L. 184, B. 150, Bi. 815, H. 142, Hi. 772, BN. 99, BA. 105, Ai. 1061, Nh. 50, Nw. 27, Ni. 540, Ow. 38, Oh. 32, Oi. 842, Ca. 1560.

*Presented by George Busk, Esq.*, 1864.

723. The skull of a Karen : ♂.

C. 505, L. 178, B. 141, Bi. 792, H. 143, Hi. 803, BN. 103, BA. 103, Ai. 1000, Nh. 50, Nw. 25, Ni. 500, Ow. 40, Oh. 32, Oi. 800, Ca. 1520.

*Presented by George Busk, Esq.*, 1864.

724. The skull of a Karen, from Bassein : ♂.

The occiput is unsymmetrically flattened posteriorly, as if from pressure in infancy; and there is a large irregular independent ossicle in the right side of the supraoccipital.

C. 500, L. 170, B. 141, Bi. 829, H. 144, Hi. 847, BN. 103, BA. 100, Ai. 971, Nh. 56, Nw. 25, Ni. 446, Ow. 40, Oh. 37, Oi. 925, Ca. 1460.

*Presented by George Busk, Esq.*, 1864.

## I. The Indo-Malayan Archipelago.

725. The skull of a Malay pirate : ♂. O. C. 5494.

The fore part of the upper teeth has been filed away, and the exposed surface of dentine stained black.

C. 510, L. 173, B. 147, Bi. 850, H. 124, Hi. 717, BN. 98, BA. 101, Ai. 1031, Nh, 49, Nw. 26, Ni. 531, Ow. 38, Oh. 36, Oi. 947, Ca. 1440.

*Hunterian.*

726. The skull of a Malay, from Penang : ♂.

C. 502, L. 178, B. 138, Bi. 775, H. 138, Hi. 775, BN. 94, BA. 94, Ai. 1000, Nh. 51, Nw. 25, Ni. 490, Ow. 37, Oh. 32, Oi. 865, Ca. 1430.

*Presented by J. D. Gillies, Esq.*, 1855.

727. The cranium of a Malay : ♂.

"The pirate who took the 'Cyprus.'"

C. 532, L. 188, B. 148, Bi. 787, H. 140, Hi. 745, BN. 104, BA. 101, Ai. 971, Nh. 55, Nw. 24, Ni. 436, Ow. 38, Oh. 34, Oi. 895, Ca. 1590.

*Presented by Lady Franklin*, 1854.

728. The skull of a Malay : ♂.

C. 509, L. 178, B. 142, Bi. 798, H. 147, Hi. 826, BN. 100, BA. 103, Ai. 1030, Nh. 50, Nw. 26, Ni. 520, Ow. 36, Oh. 32, Oi. 889, Ca. 1420.

*Presented by Lady Franklin*, 1854.

729. The skull of a Malay : ♂.

The lambdoidal suture is remarkably complex. The upper incisors are filed in front, and stained.

C. 476, L. 158, B. 140, Bi. 886, H. 130, Hi. 823, BN. 92, BA. 95, Ai. 1033, Nh. 50, Nw. 24, Ni. 480, Ow. 37, Oh. 32, Oi. 865, Ca. 1350.

*Presented by Lady Franklin*, 1854.

730. The skull of a Malay : ♂.

C. 496, L. 170, B. 141, Bi. 829, H. 122, Hi. 718, BN. 93, BA. 95, Ai. 1022, Nh. 50, Nw. 24, Ni. 480, Ow. 36, Oh. 30, Oi. 833, Ca. 1280.

*Presented by Lady Franklin*, 1854.

731. The skull of a Malay.

C. 483, L. 167, B. 137, Bi. 820, H. 129, Hi. 772, BN. 94, BA. 99, Ai. 1053, Nh. 48, Nw. 27, Ni. 563, Ow. 41, Oh. 33, Oi. 805, Ca. 1325.

*Presented by Lady Franklin*, 1854.

732. The cranium of a male native of Java. O. C. 5538.

The characters of the bones are very feminine.

The teeth have nearly all been lost during life; but there is no union of the calvarial sutures.

C. 497, L. 175, B. 137, Bi. 783, H. 130, Hi. 743, Ca. 1330.

*Presented by Sir T. Stamford Raffles.*

733. The skeleton of an old male native of Borneo. O. C. 5496 to 5530.

Taken from a large tomb on a hill above a deserted village by the river Pantai, east coast of Borneo. The circumstances under which it was found and mode of sepulture are described in Mr. A. Adams's notes appended to Sir E. Belcher's 'Narrative of the Voyage of the Samarang' (1844), vol. ii. p. 415, quoted in the former Catalogue, where the bones are separately described and compared with those of an Australian.

Most of the teeth have been lost during life. The cranial sutures are partly consolidated. The hyoid arch was completely ossified.

Clavicle 152; humerus, *r.* 322, *l.* 330; radius, *r.* 256, *l.* 258; femur, *r.* 459, *l.* 455; tibia, *r.* 395, *l.* 391.

Cranium: C. 500, L. 173, B. 141, Bi. 815, H. 144, Hi. 832, BN. 101, Nh. 53, Nw. 25, Ni. 472, Ow. 40, Oh. 35, Oi. 875, Ca. 1460.

*Presented by Admiral Sir Edward Belcher, K.C.B.*

The ten following specimens were purchased at the sale in Paris of the collection of the late Baron Van Kessel, during eleven years Dutch Resident in Borneo.

734. The cranium of a male Dayak, curiously carved and ornamented with tinfoil, and with cowries fixed in the place of the eyes*.

C. 505, L. 177, B. 145, Bi. 819, H. 142, Hi. 802, Ca. 1460.

*Van-Kessel Collection. Purchased*, 1853.

* This specimen is very similar in its mode of preparation to that described and figured in Dr. Barnard Davis's 'Thesaurus Craniorum,' p. 296.

735. The cranium of a male Dayak, from the east coast of Borneo.

It is sculptured and inlaid with tinfoil. The teeth have been removed, and wooden pegs substituted.

C. 506, L. 180, B. 141, Bi. 783, H. 139, Hi. 772, BN. 96, Nh. 52, Nw. 24, Ni. 460, Ow. 38, Oh. 32, Oi. 842, Ca. 1420.

*Van-Kessel Collection. Purchased,* 1853.

736. The skull of a Dayak from the east coast of Borneo.

The surface of the frontal and parietal bones is elegantly sculptured, and the teeth are replaced by imitations in wood.

C. 485, L. 171, B. 128, Bi. 749, H. 130, Hi. 760, BN. 94, BA. 96, Ai. 1021, Nh. 49, Nw. 24, Ni. 490, Ow. 37, Oh. 33, Oi. 892, Ca. 1230.

*Van-Kessel Collection. Purchased,* 1853.

737. The lower jaw of a male Dayak from the east coast of Borneo. *Van-Kessel Collection. Purchased,* 1853.

738. The cranium of a female Dayak.

The face is covered with tinfoil; cowry-shells occupy the place of eyes; the lower jaw is of wood; and a lock of hair, in braided plaits, is attached to the right zygoma.

C. 465, L. 168, B. 123, Bi. 732, H. 126, Hi. 750, Ca. 1175.

*Van-Kessel Collection. Purchased,* 1853.

739. The skull of a young male Batta, from the north-east coast of Borneo.

The calvaria is scored in a symmetrical pattern. The basilar suture is not united; and the third molars are not in place.

C. 485, L. 175, B. 127, Bi. 726, H. 132, Hi. 754, BN. 95, BA. 94, Ai. 989, Nh. 42, Nw. 26, Ni. 619, Ow. 36, Oh. 29, Oi. 806.

*Van-Kessel Collection. Purchased,* 1853.

740. The left moiety of the bisected cranium of a native Batta of the east coast of Borneo.

The calvaria is elegantly carved, and the orbit filled with a resinous substance, to which cowry-shells are affixed—a large one in the centre, with smaller ones placed in a radiating manner around it.

L. 186.

*Van-Kessel Collection. Purchased,* 1853.

741. The anterior portion of a similarly prepared cranium of a native of the south-east coast of Borneo.

Nh. 47, Nw. 25, Ni. 532, Ow. 35, Oh. 33, Oi. 946.

*Van-Kessel Collection. Purchased,* 1853.

742. The cranium of a native child, about seven years of age, from Central Borneo.

It has been scorched and blackened by fire.

The first permanent molars and the central incisors are in place. There are numerous and irregular Wormian bones in the hinder end of the sagittal and the lambdoidal sutures, and a large epipteric ossicle on the left side.

C. 437, L. 150, B. 128, Bi. 853, H. 127, Hi. 847, BN. 83, BA. 75, Ai. 936, Nh. 38, Nw. 22, Ni. 578, Ow. 35, Oh. 32, Oi. 914.

*Van-Kessel Collection. Purchased,* 1853.

743. The cranium of a male Bornean, from the west coast near Sarawak.

It has been blackened by fire.

C. 522, L. 183, B. 144, Bi. 787, H. 137, Hi. 749, BN. 94, BA. 91, Ai. 968, Nh. 53, Nw. 25, Ni. 472, Ow. 38, Oh. 34, Oi. 895, Ca. 1555.

*Van-Kessel Collection. Purchased,* 1853.

The two following specimens were obtained in the neighbourhood of Sarawak by the Rev. T. S. Bubb, Missionary. They have both been dried and blackened by being suspended over fire, and have the orbits and nasal opening filled with wooden plugs.

744. The skull of a Dayak: ♂.

"Killed at mouth of river at outbreak of Dayaks."

The occiput is mutilated.

C. 498, L. 173, B. 142, Bi. 821, BN. 98, BA. 97, Ai. 990, Nh. 53, Nw. 25, Ni. 472, Ow. 39, Oh. 34, Oi. 872, Ca. 1410.

*Purchased,* 1876.

745. A cranium said to be that of a Dayak: ♂.

This was marked by Mr. Bubb as "given by the doctor in Sarawak." It presents more Melanesian than Malay characters, and may be of Papuan origin, as Papuans are often taken to Borneo as slaves.

C. 500, L. 176, B. 130, Bi. 739, H. 134, Hi. 761, BN. 100, BA. 104, Ai. 1040, Nh. 50, Nw. 29, Ni. 580, Ow. 39, Oh. 31, Oi. 795, Ca. 1375.

*Purchased*, 1876.

746. The cranium of a Bugie Malay: ♂. O. C. 5495.

C. 515, L. 180, B. 145, Bi. 806, H. 132, Hi. 733, BN. 99, BA. 94, Ai. 949, Nh. 48, Nw. 24, Ni. 500, Ow. 38, Oh. 34, Oi. 895, Ca. 1500.

*Purchased.*

747. The skull, hyoid, ossified thyroid cartilage, and five upper cervical vertebræ of a native of one of the Philippine Islands: ♂. O. C. 5531 to 5536.

This and the next were presented as "Two skulls of aborigines of the Philippines, called by the Spanish colonists 'Igorotes'" (Min. Mus. Comm., Aug. 19th, 1840). They are described by Quatrefages and Hamy ('Crania Ethnica,' p. 171 *et seq.*) as Negritos.

The calvarial sutures are partially consolidated. The right paroccipital process is greatly developed, and articulates with the posterior surface of the transverse process of the atlas.

C. 483, L. 165, B. 140, Bi. 848, H. 127, Hi. 770, BN. 99, BA. 92, Ai. 929, Nh. 47, Nw. 23, Ni. 489, Ow. 36, Oh. 32, Oi. 889, Ca. 1240.

*Presented by Hugh Cuming, Esq.*, 1840.

748. The cranium of an aged male native of Samar, one of the Philippine Islands. O. C. 5537.

"From one of the caves in the mountains, deposited there previous to the conquest of the island by the Spaniards."

The teeth have all been lost and the alveoli absorbed, but the calvarial sutures are not consolidated.

C. 510, L. 175, B. 145, Bi. 829, H. 135, Hi. 771, BN. 97, Nh. 50, Nw. 25, Ni. 500, Ow. 38, Oh. 33, Oi. 868, Ca. 1500.

*Presented by Hugh Cuming, Esq.*, 1840.

749. The skull of a native of Manilla.

A symmetrical epactal bone is cut off from the upper part of the supraoccipital.

C. 510, L. 178, B. 142, Bi. 798, H. 141, Hi. 792, BN. 100, BA. 96, Ai. 960, Nh. 50, Nw. 28, Ni. 560, Ow. 37, Oh. 34, Oi. 919, Ca. 1490.

*Presented by E. W. Cooke, Esq., R.A.*, 1876.

## 4. *POLYNESIA.*

750. The cranium of a native of Nanumea (St. Augustine's Island), Ellice group: ♂.

This and the next are "skulls of ancestors, worshipped by the people of Nanumea, and only buried after the missionaries got them to give up this practice, about two months before they were dug up again by Dr. Turner, who sent them to the donor."

The third molars are not yet fully in place, although the sagittal and lambdoidal sutures are consolidated.

C. 517, L. 181, B. 147, Bi. 812, H. 139, Hi. 768, BN. 111, BA. 111, Ai. 1000, Nh. 52, Nw. 24, Ni. 460, Ow. 39, Oh. 35, Oi. 897, Ca. 1520.

*Presented by Dr. P. H. Pye-Smith,* 1877.

751. The cranium of a native of Nanumea.

C. 502, L. 178, B. 138, Bi. 775, H. 134, Hi. 753, BN. 105, Nh. 54, Nw. 25, Ni. 463, Ow. 39, Oh. 37, Oi. 949, Ca. 1275.

*Presented by Dr. P. H. Pye-Smith,* 1877.

752. The skull of a native of one of the Samoan Islands: ♂.

This and the next belonged to men killed in battle a few years ago, and buried near Apia. They were obtained by Dr. Turner.

The calvarial sutures are obliterated.

C. 517, L. 172, B. 153, Bi. 890, H. 138, Hi. 808, BN. 111, BA. 103, Ai. 928, Nh. 62, Nw. 25, Ni. 403, Ow. 42, Oh. 41, Oi. 976, Ca. 1535.

*Presented by Dr. P. H. Pye-Smith,* 1877.

753. The skull of a Samoan: ♂.

C. 501, L. 175, B. 141, Bi. 806, H. 141, Hi. 806, BN. 100, BA. 100, Ai. 1000, Nh. 57, Nw. 25, Ni. 438, Ow. 39, Oh. 34, Oi. 872, Ca. 1320.

*Presented by Dr. P. H. Pye-Smith,* 1877.

754. The skull of a native of the Tonga Islands: ♂.

Brought, in 1859, from the island of Lifuka, one of the Haapai group of the Tonga or Friendly Islands.

Metopic.

C. 508, L. 175, B. 148, Bi. 846, H. 133, Hi. 771, BN. 97, BA. 97, Ai. 1000, Nh. 53, Nw. 24, Ni. 453, Ow. 38, Oh. 35, Oi. 921, Ca. 1450.

*Purchased*, 1877.

755. The cranium of a young native of the Tonga Islands: ♀.

From the same locality as the last.

The basilar suture is open. All the permanent teeth have been acquired, except the last molars.

C. 460, L. 155, B. 136, Bi. 877, H. 124, Hi. 800, BN. 83, BA. 80, Ai. 964, Nh. 39, Nw. 19, Ni. 487, Ow. 32, Oh. 32, Oi. 1000.

*Purchased*, 1877.

756. A mutilated cranium from one of the islands on the north side of Tongatabu.

C. 483, L. 165, B. 138, Bi. 836, H. 139, Hi. 842, Ca. 1250.

*Presented by Captain Sir Everard Home, Bart., R.N.*

757. The skeleton of a male native of Niuë, or Savage Island.

From a man who came to Hobart Town in a whaling-ship, and died in the hospital of pneumonia.

The sternum is missing.

Height of skeleton 5 feet 5·2 inches = 1655.

Clavicle 139, humerus 323, radius 251, femur 448, tibia 373.

Cranium: C. 507, L. 173, B. 145, Bi. 838, H. 140, Hi. 809, BN. 102, BA. 102, Ai. 1000, Nh. 53, Nw. 22, Ni. 415, Ow. 38, Oh. 33, Oi. 868, Ca. 1490.

*Presented by Arthur Bingham Crowther, Esq.*, 1870.

758. The cranium of a young Moriori, or native of the Chatham Islands: ♀.

The basilar suture is not closed. All the permanent teeth, except the last molar, have been acquired.

C. 482, L. 171, B. 135, Bi. 789, H. 127, Hi. 743, BN. 94, Nh. 45, Nw. 24, Ni. 533, Ow. 36, Oh. 35, Oi. 972.

*Presented by Dr. Julius von Haast*, 1873.

759. The skull of a Moriori: ♀,

Dug out of peat on Pitt Island, one of the smallest of the group of the Chatham Islands.

C. 491. L. 175, B. 135, Bi. 771, H. 133, Hi. 760, BN. 100, BA. 94, Ai. 940, Nh. 52, Nw. 24, Ni. 460, Ow. 38, Oh. 37, Oi. 974, Ca. 1280.

*Presented by Anderson Critchett, Esq.*, 1876.

760. The cranium of a Moriori, or native of the Chatham Islands.

Formerly in the museum of the Middlesex Hospital, to which it was presented by Dr. H. Cooper Rose.

The basilar suture is not closed, though all the permanent teeth have been in place; the third molars (now lost) were probably not fully developed.

C. 513, L. 180, B. 137, Bi. 761, H. 135, Hi. 750, BN. 109, BA. 105, Ai. 963, Nh. 55, Nw. 25, Ni. 455, Ow. 40, Oh. 38, Oi. 950, Ca. 1470.

*Received in exchange*, 1879.

The five following specimens were obtained in the Chatham Islands by Dr. Peter Comrie, R.N., H.M.S. 'Dido,' in 1873. The first was given by a medical man resident in the islands, who had prepared it himself; the other four are from an old Moriori burial-ground near Waitangi.

761. The cranium of a Moriori, from the Chatham Islands: ♂.

C. 503, L. 172, B. 143, Bi. 831, H. 140, Hi. 814, BN. 103, BA. 99, Ai. 961, Nh. 55, Nw. 23, Ni. 418, Ow. 39, Oh. 35, Oi. 897, Ca. 1430.

*Purchased*, 1879.

762. The skull of a Moriori, from the Chatham Islands: ♂.

C. 527, L. 185, B. 147, Bi. 795, H. 134, Hi. 724, BN. 99, BA. 101, Ai. 1020, Nh. 63, Nw. 26, Ni. 413, Ow. 41, Oh. 38, Oi. 927, Ca. 1560.

*Purchased*, 1879.

763. The cranium of a Moriori, from the Chatham Islands: ♂.

The forehead is very retreating. The lambdoidal suture is extremely complex; and the upper part of the supraoccipital is composed of numerous independent ossifications. There is a Wormian bone in the left side of the coronal suture. The squamosals nearly meet the frontals on both sides.

C. 520, L. 185, B. 137, Bi. 741, H. 127, Hi. 686, BN. 97, BA. 97, Ai. 1000, Nh. 55, Nw. 24, Ni. 436, Ow. 41, Oh. 38, Oi. 927, Ca. 1390.

*Purchased*, 1879.

764. The cranium of a Moriori, from the Chatham Islands : ♂.

C. 520, L. 185, B. 143, Bi. 773, H. 142, Hi. 768, BN. 105, BA. 106, Ai. 1010, Nh. 52, Nw. 25, Ni. 482, Ow. 38, Oh. 37, Oi. 974, Ca. 1450.

*Purchased*, 1879.

765. The cranium of a Moriori, from the Chatham Islands : ♂?

C. 490, L. 172, B. 134, Bi. 779, H. 128, Hi. 744, BN. 100, BA. 105, Ai. 1050, Nh. 49, Nw. 24, Ni. 490, Ow. 39, Oh. 34, Oi. 872, Ca. 1195.

*Purchased*, 1879.

766. The skull of a Maori, or native of New Zealand : ♂. O. C. 5389.

C. 525, L. 188, B. 142, Bi. 755, H. 142, Hi. 755, BN. 113, BA. 106, Ai. 938, Nh. 55, Nw. 27, Ni. 491, Ow. 41, Oh. 38, Oi. 927, Ca. 1520.

*Presented by Governor Farquhar, Governor of the Mauritius*, 1822.

The eight following specimens are more or ess mutilated at the base, having been taken from heads preserved according to the native fashion; the height, therefore, cannot be given.

767. The skull of a Maori : ♂. O. C. 5390.

There are but three lower incisor teeth. An interparietal bone is divided from the supraoccipital by a very complex dentated transverse suture.

C. 538, L. 199, B. 143, Bi. 719, Nh. 54, Nw. 23, Ni. 426, Ow. 40, Oh. 32, Oi. 800, Ca. 1670.

*Presented by Thomas Hobbs Scott, Esq.*, 1821.

768. The skull of a Maori : ♂. O. C. 5391.

C. 510, L. 183, B. 139, Bi. 760, Nh. 55, Nw. 25, Ni. 455, Ow. 41, Oh. 36, Oi. 878.

*Presented by Thomas Hobbs Scott, Esq.*, 1821.

769. The skull of a Maori: ♂. O. C. 5392.

C. 505, L. 180, B. 138, Bi. 767, Nh. 61, Nw. 31, Ni. 508, Ow. 42, Oh. 38, Oi. 905.

*Presented by Admiral Sir Thomas Beresford*, 1828.

770. The skull of a Maori : ♂. O. C. 5393.

C. 530, L. 188, B. 144, Bi. 766, Nh. 55, Nw. 26, Ni. 473, Ow. 40, Oh. 36, Oi. 900.

*Presented by Mrs. Maria Graham*, 1824.

771. The skull of a Maori : ♂. O. C. 5394.

C. 520, L. 186, B. 139, Bi. 747, Nh. 55, Nw. 25, Ni. 455, Ow. 40, Oh. 37, Oi. 925.

*Presented by Robert Keate, Esq.*, 1827.

772. The skull of a Maori : ♂. O. C. 5395.

C. 528, L. 190, B. 138, Bi. 726, Nh. 57, Nw. 28, Ni. 491, Ow. 39, Oh. 36, Oi. 923.

*Hunterian.*

773. The much mutilated Skull of a Maori : ♂. O. C. 5396.

The calvarial sutures are consolidated. The left mandibular articulation has suffered severely from chronic rheumatic arthritis.

C. 504, L. 175, B. 140, Bi. 800.

*Hunterian.*

774. The skull of a Maori : ♀. O. C. 5397.

C. 485, L. 179, B. 125, Bi. 698, Nh. 49, Nw. 24, Ni. 490, Ow. 37, Oh. 33, Oi. 892.

*Hunterian.*

The following twenty specimens were found, with many others, in some limestone caves between the Bay of Islands and Whangarei Harbour, North Island, New Zealand.

They were received in exchange from the Auckland Museum, through the courtesy of the Curator, T. F. Cheeseman, Esq., 1879 *.

775. The skull of a Maori : ♂.

C. 530, L. 191, B. 138, Bi. 723, H. 142, Hi. 743, BN. 109, BA. 101, Ai. 927, Nh. 52, Nw. 27, Ni. 519, Ow. 40, Oh. 36, Oi. 900, Ca. 1620.

*Received from the Auckland Museum*, 1879.

* Mr. Cheeseman writes :—"I have but little doubt that the crania belong to the present race of Maoris. Some of those remarkable carved jade ornaments known by the Maoris as 'hei sikis' were found when the cave first became known to Europeans a few years ago, mixed with the bones in such a manner that it was evident that they were placed there with them."

776. The cranium of a Maori : ♂.

C. 539, L. 197, B. 139, Bi. 706, H. 145, Hi. 736, BN. 105, BA. 104, Ai. 990, Nh. 57, Nw. 27, Ni. 474, Ow. 38, Oh. 38, Oi. 1000, Ca. 1710.

*Received from the Auckland Museum*, 1879.

777. The cranium of a Maori : ♂.

The squamosal just touches the frontal on the right side.

C. 530, L. 194, B. 136, Bi. 701, H. 141, Hi. 727, BN. 108, BA. 108, Ai. 1000, Nh. 51, Nw. 28, Ni. 549, Ow. 41, Oh. 34, Oi. 829, Ca. 1545.

*Received from the Auckland Museum*, 1879.

778. The cranium of a Maori : ♂.

C. 520, L. 187, B. 139, Bi. 743, H. 132, Hi. 706, BN. 103, BA. 102, Ai. 990, Nh. 55, Nw. 27, Ni. 491, Ow. 38, Oh. 37, Oi. 974, Ca. 1500.

*Received from the Auckland Museum*, 1879.

779. The cranium of a Maori : ♂.

A transverse suture passes across the supraoccipital at the usual limit of the interparietal. The upper portion thus cut off is divided symmetrically by vertical sutures into a central and two lateral ossicles.

C. 520, L. 189, B. 139, Bi. 735, H. 139, Hi. 735, BN. 99, BA. 96, Ai. 970, Nh. 53, Nw. 27, Ni. 509, Ow. 40, Oh. 34, Oi. 850, Ca. 1610.

*Received from the Auckland Museum*, 1879.

780. The cranium of a Maori : ♂.

C. 500, L. 176, B. 136, Bi. 773, H. 143, Hi. 813, BN. 108, BA. 103, Ai. 954, Nh. 51, Nw. 26, Ni. 510, Ow. 41, Oh. 37, Oi. 902, Ca. 1430.

*Received from the Auckland Museum*, 1879.

781. The cranium of a Maori : ♂.

C. 516, L. 188, B. 132, Bi. 702, H. 138, Hi. 734, BN. 105, BA. 108, Ai. 1029, Nh. 45, Nw. 26, Ni. 578, Ow. 39, Oh. 34, Oi. 872, Ca. 1450.

*Received from the Auckland Museum*, 1879.

782. The cranium of a Maori : ♂.

C. 498, L. 177, B. 128, Bi. 723, H. 136, Hi. 768, BN. 104, BA. 104, Ai. 1000, Nh. 49, Nw. 23, Ni. 469, Ow. 39, Oh. 35, Oi. 897, Ca. 1280.

*Received from the Auckland Museum*, 1879.

783. The cranium of a Maori.

C. 527, L. 193, B. 131, Bi. 679, H. 140, Hi. 725, BN. 103, BA. 103, Ai. 1000, Nh. 51, Nw. 25, Ni. 490, Ow. 39, Oh. 36, Oi. 923, Ca. 1480.

*Received from the Auckland Museum*, 1879.

784. The cranium of a Maori.

It has a broad Wormian ossicle in the posterior end of the sagittal suture.

C. 532, L. 192, B. 142, Bi. 740, H. 145, Hi. 755, BN. 106, BA. 105, Ai. 991, Nh. 52, Nw. 25, Ni. 482, Ow. 40, Oh. 35, Oi. 875, Ca. 1630.

*Received from the Auckland Museum*, 1879.

785. The cranium of a Maori : ♀.

There are numerous large Wormian bones in the lambdoidal suture.

C. 522, L. 187, B. 138, Bi. 738, H. 133, Hi. 711, BN. 103, BA. 98, Ai. 951, Nh. 52, Nw. 26, Ni. 500, Ow. 39, Oh. 35, Oi. 897, Ca. 1500.

*Received from the Auckland Museum*, 1879.

786. The cranium of a Maori : ♀.

Though the largest cranium of the series, it presents all the characteristics of the female sex.

C. 545, L. 198, B. 142, Bi. 717, H. 143, Hi. 722, BN. 102, BA. 100, Ai. 980, Nh. 60, Nw. 28, Ni. 467, Ow. 36, Oh. 37, Oi. 1028, Ca. 1780.

*Received from the Auckland Museum*, 1879.

787. The cranium of a Maori : ♀.

There are numerous Wormian bones in the upper part of the lambdoidal suture.

C. 517, L. 184, B. 142, Bi. 772, H. 137, Hi. 745, BN. 96, BA. 94, Ai. 979, Nh. 52, Nw. 27, Ni. 519, Ow. 38, Oh. 36, Oi. 947, Ca. 1545.

*Received from the Auckland Museum*, 1879.

788. The cranium of a Maori.

C. 513, L. 185, B. 136, Bi. 735, H. 141, Hi. 762, BN. 103, BA. 96, Ai. 932, Nh. 50, Nw. 22, Ni. 440, Ow. 39, Oh. 38, Oi. 974, Ca. 1420.

*Received from the Auckland Museum*, 1879.

789. The skull of a Maori: ♀.

C. 503, L. 181, B. 132, Bi. 729, H. 132, Hi. 729, BN. 98, BA. 98, Ai. 1000, Nh. 49, Nw. 25, Ni. 510, Ow. 37, Oh. 36, Oi. 973, Ca. 1400.

*Received from the Auckland Museum*, 1879.

790. The cranium of a Maori.

C. 494, L. 177, B. 134, Bi. 757, H. 135, Hi. 763, BN. 98, BA. 94, Ai. 959, Nh. 47, Nw. 23, Ni. 489, Ow. 37, Oh. 33, Oi. 892, Ca. 1345.

*Received from the Auckland Museum*, 1879.

791. The cranium of a Maori: ♂.

C. 498, L. 174, B. 137, Bi. 787, H. 126, Hi. 724, BN. 93, BA. 98, Ai. 1054, Nh. 48, Nw. 25, Ni. 521, Ow. 37, Oh. 33, Oi. 892, Ca. 1275.

*Received from the Auckland Museum*, 1879.

792. The cranium of a young Maori.

All the permanent teeth are in place, though the posterior molars would appear, from the condition of their sockets, not to have been fully developed. The basilar suture is open; but the sagittal is almost completely closed.

C. 516, L. 183, B. 144, Bi. 787, H. 136, Hi. 743, BN. 93, BA. 89, Ai. 957, Nh. 46, Nw. 21, Ni. 457, Ow. 35, Oh. 33, Oi. 943, Ca. 1580.

*Received from the Auckland Museum*, 1879.

793. The skull of a young Maori.

All the permanent teeth have been acquired, except the posterior molars. The basilar suture is open.

C. 511, L. 187, B. 135, Bi. 722, H. 130, Hi. 695, BN. 100, BA. 100, Ai. 1000, Nh. 46, Nw. 24, Ni. 522, Ow. 36, Oh. 32, Oi. 889, Ca. 1460.

*Received from the Auckland Museum*, 1879.

794. The cranium of a Maori child.

The milk-teeth and the first permanent molars are in place.

C. 480, L. 177, B. 127, Bi. 718, H. 122, Hi. 689, BN. 85, BA. 79, Ai. 929, Nh. 40, Nw. 20, Ni. 500, Ow. 31, Oh. 31, Oi. 1000.

*Received from the Auckland Museum*, 1879.

795. Seven mandibles of Maoris from the same caves, sent with the crania, but not belonging to any of them.

*Received from the Auckland Museum*, 1879.

796. A skull of a female native of New Zealand. O. C. 5398.

C. 505, L. 183, B. 132, Bi. 721, H. 132, Hi. 721, Nh. 49, Nw. 25, Ni. 510, Ow. 37, Oh. 34, Oi. 919, Ca. 1230.

*Presented by the Hon. William Martin, Chief Justice of New Zealand.*

797. The cranium of a young native of New Zealand : ♂.

Brought to England by Sir J. D. Hooker.

The basilar suture is not united; but the third molars are in place.

C. 518, L. 190, B. 132, H. 144, Bi. 695, Hi. 758, BN. 100, BA. 99, Ai. 990, Nh. 49, Nw. 26, Ni. 531, Ow. 38, Oh. 35, Oi. 921.

*Presented by George Busk, Esq.*, 1864.

798. A cranium from the South Pacific, supposed to be from New Zealand.

Except its very large size, the general characters are feminine. It resembles several of the supposed female crania of the Auckland-Museum series, especially No. 786.

C. 551, L. 199, B. 143, Bi. 719, H. 140, Hi. 704, BN. 110, Nh. 53, Nw. 23, Ni. 434, Ow. 40, Oh. 35, Oi. 875, Ca. 1625.

*Presented by Sir Joseph D. Hooker, K.C.S.I.*, 1866.

799. A cranium from the South Pacific, supposed to be from New Zealand : ♂.

C. 516, L. 186, B. 134, Bi. 720, H. 134, Hi. 720, BN. 106, BA. 107, Ai. 1009, Nh. 51, Nw. 25, Ni. 490, Ow. 39, Oh. 33, Oi. 846, Ca. 1350.

*Presented by Sir J. D. Hooker*, 1866.

800. The articulated skeleton of a male native of Tahiti. O. C. 5386.

Prepared from a man named Tera Poo, who died in the London Hospital of phthisis, June 1816. Three specimens of tattooed skin from the same individual are preserved in the Physiological Series, Nos. 1866 c, d, e.

The third left rib is bifurcated at its sternal extremity; but the cartilages continued from its divisions converge and unite to form a single articulation with the sternum at the usual place.

Height of skeleton 5 feet 7·1 inches = 1705.

Clavicle 157, humerus 319, radius 266, femur 462, tibia 378.

Cranium: C. 498, L. 176, B. 137, Bi. 778, H. 141, Hi. 801, BN. 105, BA. 106, Ai. 1010, Nh. 53, Nw. 25, Ni. 472, Ow. 40, Oh. 36, Oi. 900, Ca. 1400.

*Presented by Sir William Blizard*, 1816.

The four following skulls of ancient inhabitants of the Sandwich Islands were taken by Mr. Greenwell from a cave in the side of a hill in the district of Cona, island of Hawaii (Owyhee), within a few miles of the spot where Captain Cook was killed.

801. A skull from a cave in Hawaii: ♂.

C. 515, L. 190, B. 131, Bi. 695, H. 144, Hi. 758, BN. 113, BA. 109, Ai. 965, Nh. 54, Nw. 24, Ni. 444, Ow. 39, Oh. 37, Oi. 949, Ca. 1350.

*Presented by Dr. Henry Hunt*, 1866.

802. A cranium from a cave in Hawaii: ♂.

C. 520, L. 175, B. 150, Bi. 857, H. 151, Hi. 863, BN. 106, BA. 103, Ai. 972, Nh. 51, Nw. 23, Ni. 451, Ow. 40, Oh. 38, Oi. 950, Ca. 1550.

*Presented by Dr. Henry Hunt*, 1866.

803. A cranium from a cave in Hawaii: ♂.

The frontal region is much depressed.

C. 500, L 175, B. 143, Bi. 817, H. 134, Hi. 766, BN. 102, BA. 103, Ai. 1010, Nh. 46, Nw. 25, Ni. 543, Ow. 39, Oh. 35, Oi. 897, Ca. 1350.

*Presented by Dr. Henry Hunt*, 1866.

804. A cranium from a cave in Hawaii : ♀.

C. 490, L. 181, B. 130, Bi. 718, H. 135, Hi. 746, BN. 98, BA. 98, Ai. 1000, Nh. 47, Nw. 23, Ni. 489, Ow. 38, Oh. 34, Oi. 895, Ca. 1250.

*Presented by Dr. Henry Hunt,* 1866.

805. The cranium of a native of the Sandwich Islands : ♂. O. C. 5387.

The supraorbital, supramastoid, occipital, and other ridges for muscular attachments are greatly developed.

C. 530, L. 185, B. 148, Bi. 800, H. 140, Hi. 757, BN. 111, BA. 111, Ai. 1000, Nh. 54, Nw. 25, Ni. 463, Ow. 39, Oh. 34, Oi. 872, Ca. 1475.

*Presented by B. Travers, Esq., Jun.,* 1849.

806. A cranium from Easter Island.

C. 510, L. 188, B. 130, Bi. 691, H. 137, Hi. 729, BN. 106, BA. 106, Ai. 1000, Nh. 48, Nw. 24, Ni. 500, Ow. 38, Oh. 34, Oi. 895, Ca. 1325.

*Presented by Professor Huxley,* 1879.

## 5. *AMERICA.*

### A. Eskimo.

807. The skull of an Eskimo from Greenland: ♂. O. C. 5479.

C. 524, L. 188, B. 134, Bi. 713, H. 147, Hi. 782, BN. 111, BA. 109, Ai. 982, Nh. 55, Nw. 23, Ni. 418, Ow. 41, Oh. 38, Oi. 927, Ca. 1580.

*Purchased*, 1843.

808. The skull of an Eskimo from Greenland: ♂. O. C. 5480.

C. 525, L. 190, B. 134, Bi. 705, H. 139, Hi. 732, BN. 109, BA. 106, Ai. 972, Nh. 61, Nw. 23, Ni. 377, Ow. 40, Oh. 37, Oi. 925, Ca. 1510.

*Purchased*, 1843.

809. The cranium of an Eskimo from Greenland: ♂. O. C. 5481 & 5764.

There is a Wormian bone at the anterior extremity of the sagittal suture.

C. 534, L. 193, B. 138, Bi. 715, H. 150, Hi. 777, BN. 117, BA. 110, Ai. 940, Nh. 61, Nw. 25, Ni. 410, Ow. 43, Oh. 37, Oi. 860, Ca. 1630.

*Purchased*, 1843.

810. The cranium of an Eskimo from Greenland: ♂. O. C. 5482.

The basilar suture is not completely united. The right upper third molar has been acquired; the left is absent.

C. 517, L. 189, B. 125, Bi. 661, H. 145, Hi. 767, BN. 112, BA. 112, Ai. 1000, Nh. 59, Nw. 25, Ni. 424, Ow. 38, Oh. 35, Oi. 921, Ca. 1400.

*Purchased*, 1843.

811. The cranium of an Eskimo: ♀.

Obtained by the donor from a native grave in the district of Egedesminde, North Greenland, July 1875.

There is complete synostosis of the sagittal suture, although traces of the basilar suture are still present.

C 510, L. 178, B. 140, Bi. 787, H. 128, Hi. 719, BN. 94, BA. 97, Ai. 1032, Nh. 47, Nw. 22, Ni. 468, Ow. 38, Oh. 34, Oi. 895, Ca. 1510.

*Presented by Capt. H. W. Feilden, R.A.*, 1877.

The twelve following specimens were taken from a burial-place in a deserted settlement on the island of Upernavik, North Greenland, by Arthur C. Horner, Esq., Surgeon to Captain Sir Allen Young's yacht 'Pandora,' during the cruise of that vessel in the summer of 1876.

812. The skull of an Eskimo from Upernavik: ♂.

C. 558, L. 208, B. 143, Bi. 688, H. 144, Hi. 692, BN. 108, BA. 113, Ai. 1046, Nh. 56, Nw. 24, Ni. 428, Ow. 42, Oh. 38, Oi. 905, Ca. 1700.

*Presented by Sir Allen Young*, 1877.

813. The skull of an Eskimo from Upernavik: ♂.

C. 529, L. 193, B. 133, Bi. 689, H. 143, Hi. 741, BN. 107, BA. 105, Ai. 981, Nh. 58, Nw. 24, Ni. 414, Ow. 41, Oh. 39, Oi. 951, Ca. 1550.

*Presented by Sir Allen Young*, 1877.

814. The skull of an Eskimo from Upernavik: ♂.

C. 522, L. 186, B. 139, Bi. 747, H. 133, Hi. 715, BN. 97, BA. 100, Ai. 1031, Nh. 53, Nw. 24, Ni. 453, Ow. 40, Oh. 35, Oi. 875, Ca. 1460.

*Presented by Sir Allen Young*, 1877.

815. The cranium of an Eskimo from Upernavik: ♂.

C. 530, L. 190, B. 139, Bi. 732, H. 145, Hi. 763, BN. 105, BA. 113, Ai. 1076, Nh. 60, Nw. 25, Ni. 417, Ow. 40, Oh. 34, Oi. 850, Ca. 1570.

*Presented by Sir Allen Young*, 1877.

816. The cranium of an Eskimo from Upernavik: ♂.

There are two large symmetrical distinct ossifications in the upper part of the supraoccipital, forming a double "epactal."

C. 514, L. 190, B. 128, Bi. 674, H. 139, Hi. 732, BN. 106, BA. 105, Ai. 991, Nh. 54, Nw. 23, Ni. 426, Ow. 42, Oh. 37, Oi. 881, Ca. 1460.

*Presented by Sir Allen Young*, 1877.

817. The skull of an Eskimo from Upernavik: ♂.

C. 543, L. 200, B. 140, Bi. 700, H. 142, Hi. 712, BN 99, BA. 99, Ai. 1000, Nh. 52, Nw. 22, Ni. 423, Ow. 41, Oh. 36, Oi. 878, Ca. 1710.

*Presented by Sir Allen Young*, 1877.

818. The cranium of an Eskimo from Upernavik: ♂.

C. 532, L. 189, B. 142, Bi. 751, H. 135, Hi. 714, BN. 100, BA. 104, Ai. 1040, Nh. 51, Nw. 24, Ni. 471, Ow. 40, Oh. 35, Oi. 875, Ca. 1570.

*Presented by Sir Allen Young*, 1877.

819. The skull of an Eskimo from Upernavik: ♀.

C. 493, L. 178, B. 128, Bi. 719, H. 135, Hi. 758, BN. 102, BA. 104, Ai. 1020, Nh. 49, Nw. 20, Ni. 408, Ow. 39, Oh. 35, Oi. 897, Ca. 1290.

*Presented by Sir Allen Young*, 1877.

820. A mutilated and weatherworn skull of an Eskimo from Upernavik.

C. 512, L. 183, B. 138, Bi. 754, H. 132, Hi. 721.

*Presented by Sir Allen Young*, 1877.

821. The lower jaw of an Eskimo from Upernavik.

*Presented by Sir Allen Young*, 1877.

822. The lower jaw of an Eskimo from Upernavik.

*Presented by Sir Allen Young*, 1877.

823. The facial portion of the skull (frontals, maxillaries, and mandible) of an Eskimo child from Upernavik.

The milk-dentition is in place. The frontals are completely united and unsymmetrically distorted.

*Presented by Sir Allen Young*, 1877.

824. The cranium of an Eskimo from Wolstenholme Sound, North Greenland: ♂. O. C. 5477.

Taken from a burial-ground at Wolstenholme Sound by James Donnet, Esq., Surgeon R.N.

The atlas is ankylosed to the occipital condyles.

C. 538, L. 195, B. 140, Bi. 718, H. 142, Hi. 728, BN. 105, BA. 103, Ai. 981, Nh. 53, Nw. 23, Ni. 434, Ow. 39, Oh. 35, Oi. 897, Ca. 1730.

*Presented by Archibald Gilchrist, Esq., Surgeon R.N.*, 1852.

825. The cranium of an Eskimo from Wolstenholme Sound : ♂.

Found at a native settlement called Naksaksua, in Wolstenholme Sound.

C. 531, L. 194, B. 141, Bi. 727, H. 143, Hi. 737, BN. 111, BA. 112, Ai. 1009, Nh. 54, Nw. 23, Ni. 426, Ow. 39, Oh. 35, Oi. 897, Ca. 1430.

*Presented by Admiral Sir Erasmus Ommanney*, 1852.

826. The skull of an Eskimo from Whale Sound : ♀.

Obtained, August 29th, 1876, by Arthur C. Horner, Esq., Surgeon to Sir Allen Young's yacht 'Pandora,' from a burial-place at an Eskimo settlement called Netlek, in Baden Bay, Whale Sound, at the extreme north of Baffin's Bay, almost the furthest point inhabited by man. The body was wrapped in walrus-skin.

The basilar suture has but recently united; and the third molars are not in place.

C. 481, L. 169, B. 132, Bi. 781, H. 134, Hi. 793, BN. 104, BA. 97, Ai. 933, Nh. 49, Nw. 21, Ni. 429, Ow. 38, Oh. 35, Oi. 921, Ca. 1230.

*Presented by Sir Allen Young*, 1877.

827. The mutilated and weatherworn cranium of an Eskimo. O. C. 5483.

Found in 1818 in a tumulus on a promontory or headland called by the natives Sichilik, on the north-west coast of Greenland.

C. 505, L. 183, B. 132, Bi. 721, H. 131, Hi. 716.

*Presented by Alexander Fisher, Esq., Surgeon R.N., of H.M.S. 'Alexander' (Captain Parry), Ross's First Expedition*, 1819.

828. The cranium of an Eskimo : ♀. O. C. 5474.

Probably from Melville Peninsula.

C. 488, L. 175, B. 134, Bi. 766, H. 125, Hi. 714, BN. 100, BA. 110, Ai. 1100, Nh. 49, Nw. 21, Ni. 429, Ow. 38, Oh. 33, Oi. 868, Ca. 1285.

*Presented by Admiral Sir Edward Parry*, 1823.

829. The cranium of an Eskimo : ♀. O. C. 5475.

Probably from Melville Peninsula.

C. 511, L. 185, B. 137, Bi. 741, H. 137, Hi. 741, BN. 99, BA. 97, Ai. 980, Nh. 49, Nw. 24, Ni. 490, Ow. 42, Oh. 34, Oi. 810, Ca. 1440.

*Presented by Admiral Sir Edward Parry*, 1823.

830. The mutilated and weatherworn cranium of an Eskimo: ♂. O. C. 5476.

Probably from Melville Peninsula.

C. 545, L. 201, B. 135, Bi. 672, H. 145, Hi. 721.

*Presented by Admiral Sir Edward Parry*, 1823.

831. The skull of an Eskimo from Pond's Bay, west coast of Baffin's Bay: ♂.

C. 492, L. 175, B. 133, Bi. 760, H. 134, Hi. 766, BN. 97, BA. 95, Ai. 979, Nh. 52, Nw. 21, Ni. 404, Ow. 38, Oh. 34, Oi. 895, Ca. 1230.

*Presented by Admiral Sir Edward Belcher*, 1855.

832. The skull of an Eskimo from Port Dundas, Lancaster Sound, N. lat. 74° 20′, W. long. 81° 50′: ♂.

C. 522, L. 187, B. 138, Bi. 738, H. 137, Hi. 733, BN. 104, BA. 107, Ai. 1029, Nh. 54, Nw. 24, Ni. 444, Ow. 40, Oh. 37, Oi. 925, Ca. 1630.

*Presented by Lieut. Elliott, R.N.*, 1854.

833. The cranium of an Eskimo from the same locality: ♀.

C. 498, L. 183, B. 128, Bi. 699, H. 138, Hi. 754, BN. 102, BA. 101, Ai. 990, Nh. 51, Nw. 23, Ni. 451, Ow. 37, Oh. 34, Oi. 919, Ca. 1310.

*Presented by Lieut. Elliott, R.N.*, 1854.

834. The articulated skeleton of a male Eskimo. O. C. 5442 to 5472*.

Many of the bones of the hands and feet are missing.

There are eighteen dorso-lumbar vertebræ, one being intermediate between the dorsal and lumbar series in position and characters. It appears to have borne a small pair of ribs (now missing) on the transverse processes, but not articulating with the body.

Height of skeleton 5 feet 0·8 inch = 1545.

Clavicle 152; humerus, *r.* 294, *l.* 288; radius, *r.* 208, *l.* 208; femur, *r.* 425, *l.* 431; tibia, *r.* 333, *l.* 336.

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* In a manuscript note to one of the Catalogues it is stated that this and the two following are from Boothia; but the authority for the statement is not given. They were in the Museum before 1841, as they are included in the list of skeletons in the store-room printed in that year.

Cranium: C. 531, L. 193, B. 137, Bi. 710, H. 139, Hi. 720, BN. 107, BA. 108, Ai. 1009, Nh. 55, Nw. 22, Ni. 400, Ow. 40, Oh. 37, Oi. 925, Ca. 1610.

*Presented by Admiral Sir James C. Ross.*

835. The articulated skeleton of a female Eskimo. (Skull, O. C. 5473.)

This skeleton has also eighteen dorso-lumbar vertebræ.

The right femur and most of the bones of the hands and feet are missing.

Height of skeleton 4 feet 6·1 inches = 1373.

Clavicle, *r.* and *l.* 129; humerus, *r.* 281, *l.* 274; radius, *r.* 202, *l.* 197; femur, *l.* 390; tibia, *r.* 305, *l.* 306.

Cranium: C. 502, L. 183, B. 129, Bi. 705, H. 130, Hi. 710, BN. 96, BA. 100, Ai. 1042, Nh. 50, Nw. 22, Ni. 440, Ow. 39, Oh. 32, Oi. 820, Ca. 1330.

*Presented by Admiral Sir James C. Ross.*

836. The imperfect skeleton of a male Eskimo. (Cranium, O. C. 5478 & 5758.)

It has the normal number of vertebræ. The right femur is missing.

Clavicle 150; humerus, *r.* 310, *l.* 304; radius, *r.* 222, *l.* 223; femur, *l.* 443; tibia, *r.* 326, *l.* 324.

Cranium: C. 522, L. 191, B. 133, Bi. 696, H. 140, Hi. 733, BN. 109, BA. 108, Ai. 991, Nh. 52, Nw. 22, Ni. 423, Ow. 40, Oh. 34, Oi. 850, Ca. 1510.

*Presented by Admiral Sir James C. Ross.*

## B. West Coast of North America.

837. The cranium of a "Flat-head" Indian from the banks of the Columbia river, artificially deformed by fronto-occipital compression in infancy, producing antero-posterior shortening and great lateral expansion: ♂. O. C. 5410.

It is metopic, though the sagittal and the lower ends of the coronal sutures are obliterated. An epactal bone is separated from the supraoccipital by a very complex denticulated suture.

C. 543, L. 165, B. 183, Bi. 1109, H. 131, Hi. 794, BN. 100, BA. 108, Ai. 1080, Nh. 54, Nw. 26, Ni. 481, Ow. 39, Oh. 35, Oi. 897, Ca. 1650.

*Purchased.*

838. The cranium of a "Flat-head" Indian from Columbia River, similarly deformed: ♂. O. C. 5411.

There is a small Wormian bone on each side of the coronal suture, and traces of a large epactal in the supraoccipital.

C. 547, L. 173, B. 163, Bi. 942, H. 134, Hi. 775, BN. 99, BA. 109, Ai. 1101, Nh. 51, Nw. 27, Ni. 529, Ow. 41, Oh. 36, Oi. 878, Ca. 1600.

*Purchased from Dr. Vesalius Pettigrew*, 1853

839. The skull of a female infant from Columbia River, who had died during the process of flattening. O. C. 5412.

"The deciduous incisors have cut the gum; not the deciduous canines or molars. The elements of the occipital are ununited. The supraoccipital is expanded, almost flattened, and pushed unsymmetrically to the left side, by the pressure of the lower flattening-board, which has also flattened the lower part of the right parietal. The effect of the upper flattening-board is more remarkably shown upon the frontals and contiguous parts of the parietals; the sutures are linear, and the great fontanelle is widely open; the compressed brain has pushed forwards the orbital plates of the sphenoids and frontals, and must have caused the eyeballs to protrude frightfully; the lower border of the orbits is much advanced beyond the upper one. The maxillo-premaxillary suture remains on the palate and in front of the nasal cavity. The nasals, molars, and right exoccipital are wanting." O. C. p. 843.

C. 46, L. 137, B. 147, Bi. 1073, H. 89, Hi. 650.

*Purchased from Dr. Vesalius Pettigrew*, 1853.

840. The cranium of a young "Flat-head" Indian from Columbia River, artificially deformed by fronto-occipital compression, with great and unsymmetrical lateral bulging: ♂? O. C. 5409.

The basilar suture is not united, though the third molars have been acquired.

C. 527, L. 152, B. 182, Bi. 1197, H. 135, Hi. 888, BN. 97, BA. 94, Ai. 969, Nh. 52, Nw. 22, Ni. 423, Ow. 39, Oh. 35, Oi. 897, Ca. 1670.

*Purchased.*

841. The cranium of a "Flat-head" or Chenook Indian from the Columbia River, artificially deformed by fronto-occipital pressure: ♂.

The squamosals almost meet the frontal on both sides. There are Wormian bones in both sides of the coronal suture.

C. 540, L. 168, B. 163, Bi. 970, H. 130, Hi. 774, BN. 90, BA. 97, Ai. 1078, Nh. 57, Nw. 23, Ni. 403, Ow. 38, Oh. 37, Oi. 974, Ca. 1580.

*Presented by Owen Rees, Esq.*, 1868.

842. The cranium of a "Flat-head" Indian from the banks of the Columbia River, similarly deformed: ♀. O. C. 5407.

There are Wormian bones on both sides of the coronal suture.

C. 480, L. 140, B. 153, Bi. 1093, H. 122, Hi. 871, BN. 87, BA. 95, Ai. 916, Nh. 52, Nw. 23, Ni. 442, Ow. 37, Oh. 35, Oi. 946, Ca. 1130.

*Astley Cooper Collection. Purchased*, 1843.

843. The skull of a "Flat-head" Indian from Coffin Island, Columbia River, similarly deformed: ♀. O. C. 5408.

It has a large, irregular, vertically-divided "epactal."

C. 495, L. 155, B. 153, Bi. 987, H. 130, Hi. 839, BN. 95, BA. 93, Ai. 979, Nh. 51, Nw. 24, Ni. 471, Ow. 40, Oh. 37, Oi. 925, Ca. 1320.

*Presented by Admiral Sir E. Belcher*, 1842.

844. The cranium of an Indian from Vancouver's Island, similarly deformed: ♀.

The atlas is ankylosed to the base of the skull.

C. 495, L. 153, B. 155, Bi. 1013, H. 120, Hi. 784, BN. 94, BA. 100, Ai. 1064, Nh. 49, Nw. 24, Ni. 490, Ow. 40, Oh. 34, Oi. 850, Ca. 1305.

*Presented by Dr. J. T. Caddy, Surgeon R.N.*, 1861.

845. The cranium of an Indian from Vancouver's Island, similarly but very unsymmetrically deformed: ♂.

C. 520, L. 170, B. 156, Bi. 918, H. 125, Hi. 735, BN. 98, BA. 103, Ai. 1051, Nh. 48, Nw. 24, Ni. 500, Ow. 38, Oh. 34, Oi. 895, Ca. 1530.

*Presented by Dr. J. T. Caddy, Surgeon R.N.*, 1861.

846. The deformed cranium of an Indian from Vancouver's Island: ♂.

This differs from all the foregoing, inasmuch as the occipital region has retained its normal shape, the evidence of pressure being confined to the frontal region. It has epipterics on both sides, and a distinct "interparietal."

C. 520, L. 170, B. 156, Bi. 918, H. 125, Hi. 735, BN. 107, BA. 113, Ai. 1056, Nh. 51, Nw. 24, Ni. 471, Ow. 42, Oh. 37, Oi. 881, Ca. 1510.

*Presented by Dr. J. T. Caddy, Surgeon R.N.*, 1861.

847. A skull from an Indian grave at Sook Harbour, Vancouver's Island, with the frontal region artificially depressed: ♂.

There are small Wormian bones on both sides of the coronal suture.

C. 530, L. 172, B. 166, Bi. 965, H. 127, Hi. 738, BN. 97, BA. 103, Ai. 1062, Nh. 52, Nw. 24, Ni. 460, Ow. 41, Oh. 39, Oi. 951, Ca. 1560.

*Purchased*, 1879.

848. A similarly flattened skull from Sook Harbour, Vancouver's Island: ♂.

C. 512, L. 167, B. 160, Bi. 958, H. 127, Hi. 760, BN. 100, BA. 107, Ai. 1070, Nh. 57, Nw. 26, Ni. 456, Ow. 40, Oh. 38, Oi. 950, Ca. 1400.

*Purchased*, 1879.

849. A flattened skull from Sook Harbour, Vancouver's Island: ♂.

C. 508, L. 162, B. 159, Bi. 981, H. 130, Hi. 802, BN. 105, BA. 105, Ai. 1000, Nh. 51, Nw. 25, Ni. 490, Ow. 39, Oh. 35, Oi. 897, Ca. 1475.

*Purchased*, 1879.

850. A flattened skull from Sook Harbour, Vancouver's Island.

C. 520, L. 170, B. 160, Bi. 941, H. 130, Hi. 765, BN. 99, BA. 95, Ai. 960, Nh. 48, Nw. 23, Ni. 479, Ow. 41, Oh. 36, Oi. 878, Ca. 1500.

*Purchased*, 1879.

851. A flattened skull from Sook Harbour, Vancouver's Island: ♀.

C. 510, L. 169, B. 155, Bi. 917, H. 126, Hi. 746, BN. 99, BA. 103, Ai. 1040, Nh. 52, Nw. 22, Ni. 423, Ow. 39, Oh. 36, Oi. 923, Ca. 1330.

*Purchased*, 1879.

852. A flattened skull from Sook Harbour, Vancouver's Island: ♀.

C. 498, L. 158, B. 156, Bi. 987, H. 126, Hi. 797, BN. 96, Nh. 49, Nw. 22, Ni. 449, Ow. 43, Oh. 38, Oi. 884, Ca. 1295.

*Purchased*, 1879.

853. The artificially deformed cranium of an Indian of the Quamichan tribe, residing near Cowichan, on the east coast of Vancouver's Island: ♀.

Collected in 1869 by F. Dally, D.D.S.

The forehead is depressed, the occiput flattened, the parietals laterally expanded, and there is a circular constriction behind the coronal suture.

C. 470, L. 152, B. 152, Bi. 1000, H. 129, Hi. 849, BN. 92, BA. 94, Ai. 1022, Nh. 49, Nw. 21, Ni. 429, Ow. 37, Oh. 34, Oi. 919, Ca. 1220.

*Purchased*, 1879.

854. The cranium of an Indian boy of the Quamichan tribe, inhabiting the Cowichan valley, on the east coast of Vancouver's Island.

Collected in 1869 by F. Dally, D.D.S.

It has not been depressed, but perhaps slightly elongated by circular constriction, as seen in a more marked degree in the following specimen. The permanent incisors and the first permanent molars have been acquired, but both milk-molars are still in place.

C. 473, L. 169, B. 124, Bi. 734, H. 123, Hi. 728, BN. 90, BA. 93, Ai. 1033, Nh. 42, Nw. 22, Ni. 524, Ow. 36, Oh. 32, Oi. 889.

*Purchased*, 1879.

855. The skull of an Indian of the Chenook tribe, inhabiting the banks of the Columbia River at its outlet into the Pacific: ♂. O. C. 5413.

It has been artificially elongated during infancy by the application of constricting bandages, which have produced a transverse depression immediately behind the coronal suture. The squamosals almost meet the frontals. There are two small epipterics on the right side; and there are small Wormian bones in the coronal suture.

C. 525, L. 186, B. 140, Bi. 753, H. 140, Hi. 753, BN. 109, BA. 114, Ai. 1046, Nh. 57, Nw. 25, Ni. 438, Ow. 42, Oh. 37, Oi. 881, Ca. 1625.

*Presented by Frederick Tyrrell, Esq.*

856. The skull of a Koskeemo Indian, a small tribe inhabiting the shores of the Quatsino Sound, north-west coast of Vancouver's Island.

It has been artificially elongated by the same process as the last, but to a very remarkable degree. There is a distinct interparietal bone.

This skull presents all the characteristics of the male sex, and is of middle age, as is shown by the partial consolidation of the calvarial sutures. It is, however, stated by Mr. Robert Brown (who obtained it in Vancouver's Island in 1866) that this form of distortion is only practised upon the females of the tribe, and that this particular skull is that of the girl figured at p. 277 of Mayne's 'Four Years in British Columbia' (1862).

C. 560, L. 208, B. 132, Bi. 635, H. 141, Hi. 678, BN. 102, BA. 105, Ai. 1029, Nh. 57, Nw. 24, Ni. 421, Ow. 40, Oh. 42, Oi. 1050, Ca. 1630.

*Purchased*, 1868.

857. The skull and innominate bones of a Sheshaaht-Indian slave woman: ♀.

"Obtained by Mr. Robert Brown, in 1866, on Observatory Island, Stamps Harbour, Alberni Canal, Vancouver's Island. On account of her servile birth, her head had not been distorted."

The basilar suture has but recently united; and the last molars are not in place.

C. 497, L. 177, B. 137, Bi. 774, H. 133, Hi. 751, BN. 100, BA. 100, Ai. 1000, Nh. 46, Nw. 23, Ni. 500, Ow. 38, Oh. 34, Oi. 895, Ca. 1330.

*Purchased*, 1868.

858. The mutilated cranium of a female Tsongeisth, or Songhies Indian.

Obtained by Mr. Robert Brown, in 1863, at Victoria Arm, Vancouver's Island.

C. 478, L. 168, B. 137, Bi. 815, Nh. 49, Nw. 23, Ni. 469, Ow. 37, Oh. 37, Oi. 1000, Ca. 1220.

*Purchased*, 1868.

859. The cranium of an Indian from Santa Cruz Island, off the coast of California: ♂.

C. 512, L. 182, B. 142, Bi. 780, H. 133, Hi. 731, BN. 103, BA. 103, Ai. 1000, Nh. 50, Nw. 26, Ni. 520, Ow. 40, Oh. 37, Oi. 925, Ca. 1400.

*Presented by the Peabody Museum of American Archæology and Ethnology*, 1879.

## C. Eastern and Central Regions of North America.

860. A mutilated cranium which was found in a saltpetre-cave in Tennessee State: ♂. O. C. 5441.

C. 502, L. 179, B. 135, Bi. 755, H. 142, Hi. 793, BN. 105, Ow. 38, Oh. 33, Oi. 868, Ca. 1370.

*Purchased.*

861. The mutilated cranium of an Indian from Tennessee: ♂.

Metopic.

C. 522, L. 186, B. 140, Bi. 753, H. 140, Hi. 753, BN. 106, Ow. 39, Oh. 33, Oi. 846, Ca. 1450 (approx.).

*Presented by George Busk, Esq.*, 1865.

862. The cranium of a Messisaqua, or Mohawk Indian, from an old battle-ground at Rice Lake: ♂.

C. 510, L. 185, B. 138, Bi. 746, H. 138, Hi. 746, BN. 106, BA. 107, Ai. 1009, Nh. 53, Nw. 28, Ni. 528, Ow. 39, Oh. 34. Oi. 872, Ca. 1390.

*Presented by George Gulliver, Esq.*, 1863.

The following twelve specimens were collected in the United States by Mr. George Russell, and were purchased from him in 1860. They were accompanied by a full MS. description of the circumstances under which they were found.

863. The mutilated cranium of an Osage Indian: ♂.

C. 515, L. 170, B. 157, Bi. 924.

*Purchased*, 1860.

864. The mutilated cranium of an Uchee Indian: ♀.

"A tribe characterized by their small round heads. Obtained from the Pea River battle-ground (Alabama), where they gave General Welbourne a hard fight. Their women served them with ammunition during the action."

C. 472, L. 161, B. 135, Bi. 839, H. 128, Hi. 795, BN. 96, Ca. 1150.

*Purchased*, 1860.

865. The cranium of a Shawnee Indian: ♀.

From the Shawnee territory, west of Arkansas. Most of the teeth have been lost during life; and the sagittal suture is partly consolidated. The left paroccipital process is so greatly developed as to have articulated with the transverse process of the atlas.

C. 496, L. 174, B. 139, Bi. 799, H. 127, Hi. 730, BN. 90, Ow. 40, Oh. 36, Oi. 900, Ca. 1230.

*Purchased*, 1860.

866. The cranium of a young Chickasaw Indian from the Upper Mississippi.

The basilar suture has not united; and the last molars are not fully in place.

C. 492, L. 176, B. 137, Bi. 778, H. 136, Hi. 773, BN. 102, BA. 98, Ai. 961, Nh. 50, Nw. 24, Ni. 480, Ow. 38, Oh. 34, Oi. 895, Ca. 1320.

*Purchased*, 1860.

867. A cranium said to be that of "a Creek-Indian Squaw" from the Upper Mississippi: ♀.

C. 510, L. 186, B. 136, Bi. 731, H. 140, Hi. 753, BN. 101, BA. 101, Ai. 1000, Nh. 47, Nw. 23, Ni. 489, Ow. 36, Oh. 30, Oi. 833, Ca. 1420.

*Purchased*, 1860.

868. The mutilated cranium of a Choctaw Indian, named "Co-you-ho-mo": ♀?

It has been remarkably deformed by pressure applied to the region of the lambda and causing an anterior projection of the forehead. The lower extremities of the coronal and the parieto-sphenoidal and fronto-sphenoidal sutures are closed; but all the other calvarial sutures are quite free.

C. 490, L. 165, B. 145, Bi. 879, H. 136, Hi. 824, BN. 97, Ow. 38, Oh. 33, Oi. 868.

*Purchased*, 1860.

869. A skull from a mound twenty feet high on the bank of the Mississippi, twelve miles below Memphis : ♀.

It has been obliquely flattened posteriorly.

C. 465, L. 152, B. 145, Bi. 954, H. 140, Hi. 921, Ca. 1210.

*Purchased*, 1860.

870. A skull found in 1849 in an ancient mound near Franklin, in Middle Tennessee : ♂.

The extreme natural brachycephaly appears to have been increased by pressure on the occiput in infancy; but otherwise it is not deformed.

C. 473, L. 156, B. 148, Bi. 949, H. 143, Hi. 917, BN. 99, Ca. 1260.

*Purchased*, 1860.

871. A similar skull from the same mound : ♂.

There is a nearly symmetrical pair of Wormian bones at the posterior end of the sagittal suture.

C. 483, L. 155, B. 149, Bi. 961, H. 143, Hi. 923, BN. 100, BA. 102, Ai. 1020, Nh. 52, Nw. 24, Ni. 460, Ow. 37, Oh. 34, Oi. 919, Ca. 1305.

*Purchased*, 1860.

872. A cast of the skull of a Natchez Indian : ♂.

The original was obtained by Dr. Powell, of Memphis, from a mound within three miles of Natchez, Mississippi. It has been artificially flattened in the antero-posterior direction by compression on the frontal and on the supraoccipital and posterior parietal regions, so as to produce great elevation of the vertex.

C. 485, L. 146, B. 163, Bi. 1117.

*Purchased*, 1860.

873. The cast of a skull taken from a mound near Bellefonte, North Alabama : ♂.

Probably that of a Natchez Indian. The forehead has been artificially flattened.

C. 505, L. 160, B. 155, Bi. 969.

*Purchased*, 1860.

874. A mutilated cranium from North Alabama.

The forehead appears to have been flattened artificially.

*Purchased*, 1860.

875. A cranium from an ancient stone grave in a mound in Tennessee : ♂.

The occipital region has been unsymmetrically flattened. Bony growths nearly fill both external auditory meatuses.

C. 503, L. 167, B. 148, Bi. 886, H. 149, Hi. 892, BN. 106, BA. 104, Ai. 981, Nh. 57, Nw. 26, Ni. 456, Ow. 40, Oh. 35, Oi. 875, Ca. 1570.

*Presented by the Peabody Museum of American Archæology and Ethnology,* 1879.

876. A cranium found in an ancient mound in the western part of the state of Missouri : ♀.

It presents no sign of artificial deformation. The calvarial sutures are almost obliterated. The squamosals appear to have joined the frontals on both sides.

C. 458, L. 162, B. 118, Bi. 728, H. 137, Hi. 846, BN. 97, BA. 94, Ai. 969, Nh. 52, Nw. 22, Ni. 423, Ow. 37, Oh. 37, Oi. 1000, Ca. 1090.

*Presented by the Rev. E. E. Beadle,* 1878.

## D. Central America and the Antilles

877. A small skull brought from Mexico : ♂?

No certain information could be obtained as to the race to which it belonged, or the exact locality in which it was found.

C. 466, L. 165, B. 127, Bi. 770, H. 124, Hi. 756, BN. 88, BA. 96, Ai. 1091, Nh. 44, Nw. 22, Ni. 500, Ow. 36, Oh. 33, Oi. 917, Ca. 1070.

*Presented by Henry Christy, Esq.,* 1865.

878. A mutilated cranium of a Carib found in a cave in Cuba.

It has been artificially distorted by pressure on the frontal and lower occipital regions.

C. 493, L. 157, B. 158, Bi. 1006, H. 127, Hi. 809, Ca. 1225.

*Presented by Henry Christy, Esq.,* 1865.

879. The skull of a Carib from one of the Caribbean Islands : ♂. O. C. 5403.

It has a remarkably flat and receding forehead, probably from the effects of compression in infancy.

C. 515, L. 180, B. 145, Bi. 806, H. 132, Hi. 733, BN. 103, BA. 108, Ai. 1049, Nh. 55, Nw. 24, Ni. 436, Ow. 39, Oh. 37, Oi. 949, Ca. 1330.

*Hunterian.*

880. The cranium of a Carib from one of the Caribbean Islands: ♀. O. C. 5404.

C. 500, L. 172, B. 146, Bi. 849, H. 118, Hi. 686, BN. 89, BA. 92, Ai. 1034, Nh. 54, Nw. 26, Ni. 481, Ow. 37, Oh. 37, Oi. 1000, Ca. 1215.

*Hunterian.*

## E. Guiana and Columbia.

881. The skull of a Macusi Indian from Guiana: ♂. O. C. 5405.

C. 519, L. 181, B. 145, Bi. 801, H. 133, Hi. 735, BN. 101, BA. 102, Ai. 1010, Nh. 53, Nw. 28, Ni. 528, Ow. 37, Oh. 37, Oi. 1000, Ca. 1455.

*Purchased from Sir R. H. Schomburgk,* 1840.

882. The cranium of a female Carib or Indian of the Arawaak tribe, from Guiana. O. C. 5406.

C. 485, L. 172, B. 135, Bi. 785, H. 122, Hi. 709, BN. 91, BA. 93, Ai. 1022, Nh. 46, Nw. 25, Ni. 543, Ow. 37, Oh. 33, Oi. 892, Ca. 1200.

*Presented by Sir Robert H. Schomburgk,* 1844.

883. The skull of a Muizca, or former inhabitant of New Granada: ♂.

Taken from an Indian grave in Fontibon, six miles west of Santa Fé de Bogotá, February 1st, 1868, by Mr. George Crowther.

C. 500, L. 167, B. 145, Bi. 868, H. 135, Hi. 808, BN. 96, BA. 100, Ai. 1042, Nh. 50, Nw. 25, Ni. 500, Ow. 37, Oh. 33, Oi. 892, Ca. 1380.

*Purchased,* 1869.

884. The cranium of a Muizca from Fontibon, near Bogota: ♂.

It has been artificially flattened in the region of the lambda.

C. 484, L. 168, B. 138, Bi. 821, Nh. 48, Nw. 24, Ni. 500, Ow. 37, Oh. 35, Oi. 946, Ca. 1300.

*Purchased,* 1869.

885. The cranium of a Muizca from Fontibon, near Bogota : ♂.

C. 510, L. 184, B. 138, Bi. 750, H. 140, Hi. 761, BN. 100, BA. 98, Ai. 980, Nh. 57, Nw. 25, Ni. 438, Ow. 37, Oh. 39, Oi. 1054, Ca. 1500.

*Purchased*, 1869.

886. The cranium of a Muizca from Fontibon, near Bogota.

A narrow elongated cranium of a different type from the others from the same locality, though the last makes some approach to it.

C. 509, L. 192, B. 128, Bi. 667, H. 137, Hi. 714, BN. 101, BA. 106, Ai. 1050, Nh. 48, Nw. 25, Ni. 521, Oh. 35, Ow. 36, Oi. 1029, Ca. 1425.

*Purchased*, 1869.

887. The skull of a Muizca from Tunjuelo, near Bogota : ♂.

The frontal region has been artificially flattened.

C. 500, L. 162, B. 150, Bi. 926, H. 135, Hi. 833, BN. 96, BA. 101, Ai. 1052, Ow. 39, Oh. 32, Oi. 820, Ca. 1380.

*Purchased*, 1869.

888. The cranium of a Muizca from Tunjuelo, near Bogota : ♂.

It has been slightly and unsymmetrically distorted by occipital pressure.

C. 485, L. 165, B. 141, Bi. 855, H. 137, Hi. 830, BN. 100, Ow. 39, Oh. 33, Oi. 846, Ca. 1270.

*Purchased*, 1869.

889. The bones of a right and a left lower extremity (wanting the right foot), which accompanied the above skulls.

*Purchased*, 1869.

890. A skull found (with a small earthen vessel) in an Indian grave at Quaeta, near Tomeque, New Granada : ♂.

C. 525, L. 183, B. 147, Bi. 803, H. 137, Hi. 749, BN. 102, Nh. 49, Nw. 26, Ni. 531, Ow. 38, Oh. 34, Oi. 895, Ca. 1460.

*Received in exchange from A. W. Franks, Esq.*, 1875.

## F. Peru, Bolivia, and Chile.

The following hundred specimens were collected by T. J. Hutchinson, Esq., H.M. Consul at Callao, and sent by him to the Anthropological Institute of Great Britain and Ireland, being part of the collection referred to in Mr. Busk's paper entitled "Remarks on a Collection of 150 Ancient Peruvian Skulls, presented to the Anthropological Institute by T. J. Hutchinson, Esq.," &c., 'Journal of the Anthropological Institute,' vol. iii. p. 86 (1874). They were presented to the College by the Council of the Institute, June 1873 *.

The following thirty-six specimens were obtained from two burial-grounds close to the seashore at Pasamayo, five miles south of Chançay and thirty miles north of Callao.

891. A skull, remarkably deformed by antero-posterior compression, from Pasamayo : ♀?

The last upper left molar is displaced upwards and backwards.

C. 480, L. 141, B. 160, Bi. 1135, H. 130, Hi. 922, BN. 88, BA. 92, Ai. 1045, Nh. 50, Nw. 21, Ni. 420, Ow. 38, Oh. 37, Oi. 974, Ca. 1230.

*Hutchinson Collection. Presented,* 1873.

892. A cranium from Pasamayo, exhibiting a similar but less marked deformation : ♂?

C. 482, L. 150, B. 155, Bi. 1033, H. 120, Hi. 800, BN. 92, BA. 100, Ai. 1087, Nh. 50, Nw. 24, Ni. 480, Ow. 38, Oh. 35, Oi. 921, Ca. 1170.

*Hutchinson Collection. Presented,* 1873.

893. A skull from Pasamayo : ♂.

The sagittal suture is obliterated. As in several others of this series, the meatus auditorius externus is encroached upon, almost to occlusion, by bony growths from its walls.

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* A corresponding number of lower jaws were presented with the skulls; but, except in the few instances in which they appeared to belong to the same individuals, they have not been attached to the crania, or separately catalogued, but are preserved in a drawer in the Museum.

C. 497, L. 163, B. 148, Bi. 908, H. 135, Hi. 828, BN. 104, BA. 107, Ai. 1029, Nh. 50, Nw. 23, Ni. 460, Ow. 39, Oh. 33, Oi. 846, Ca. 1320.

*Hutchinson Collection.* *Presented,* 1873.

894. A cranium from Pasamayo : ♂.

C. 514, L. 172, B. 154, Bi. 895, H. 134, Hi. 779, BN. 98, BA. 105, Ai. 1071, Nh. 48, Nw. 23, Ni. 479, Oh. 39, Ow. 33, Oi. 846, Ca. 1500.

*Hutchinson Collection.* *Presented,* 1873.

895. A cranium from Pasamayo : ♂.

The left auditory meatus is remarkably contracted and nearly filled with osseous growths.

C. 487, L. 167, B. 140, Bi. 838, H. 129, Hi. 772, BN. 94, BA. 91, Ai. 968, Nh. 50, Nw. 21, Ni. 420, Ow. 33, Oh. 37, Oi. 892, Ca. 1260.

*Hutchinson Collection.* *Presented,* 1873.

896. A cranium from Pasamayo : ♂.

C. 500, L. 167, B. 149, Bi. 892, H. 135, Hi. 808, BN. 106, BA. 103, Ai. 972, Nh. 53, Nw. 25, Ni. 472, Ow. 39, Oh. 33, Oi. 846, Ca. 1310.

*Hutchinson Collection.* *Presented,* 1873.

897. A cranium from Pasamayo : ♂.

In the upper part of the supraoccipital are four nearly symmetrical independent ossifications.

C. 498, L. 172, B. 142, Bi. 826, H. 128, Hi. 744, BN. 102, BA. 102, Ai. 1000, Nh. 49, Nw. 23, Ni. 469, Ow. 38, Oh. 35, Oi. 921, Ca. 1285.

*Hutchinson Collection.* *Presented,* 1873.

898. A cranium from Pasamayo : ♂.

The auditory meatuses of both sides are reduced to extremely narrow clefts.

C. 502, L. 171, B. 147, Bi. 860, H. 132, Hi. 772, BN. 104, BA. 104, Ai. 1000, Nh. 47, Nw. 22, Ni. 468, Ow. 38, Oh. 35, Oi. 921, Ca. 1350.

*Hutchinson Collection.* *Presented,* 1873.

899. A cranium from Pasamayo : ♂.

C. 500, L. 160, B. 155, Bi. 969, H. 141, Hi. 881, BN. 100, BA. 102, Ai. 1020, Nh. 54, Nw. 23, Ni. 426, Ow. 38, Oh. 36, Oi. 947, Ca. 1370.

*Hutchinson Collection. Presented,* 1873.

900. A cranium from Pasamayo : ♂.

There is a large epipteric bone on the right side. The Wormian bones in the lambdoidal suture are large and numerous.

C. 495, L. 173, B. 140, Bi. 809, H. 129, Hi. 746, BN. 102, Nh. 51, Nw. 22, Ni. 431, Ow. 38, Oh. 34, Oi. 921, Ca. 1300.

*Hutchinson Collection. Presented,* 1873.

901. A cranium from Pasamayo : ♂.

The occiput is somewhat flattened. There is a distinct "interparietal" bone.

C. 492, L. 168, B. 152, Bi. 905, H. 136, Hi. 810, BN. 101, BA. 101, Ai. 1000, Nh. 50, Nw. 22, Ni. 440, Ow. 37, Oh. 33, Oi. 892, Ca. 1380.

*Hutchinson Collection. Presented,* 1873.

902. A cranium from Pasamayo : ♂.

There are two Wormian bones in the posterior end of the sagittal suture.

C. 500, L. 165, B. 155, Bi. 939, H. 141, Hi. 855, BN. 101, BA. 101, Ai. 1000, Nh. 48, Nw. 26, Ni. 542, Ow. 37, Oh. 35, Oi. 946, Ca. 1450.

*Hutchinson Collection. Presented,* 1873.

903. A cranium from Pasamayo : ♂.

C. 502, L. 168, B. 150, Bi. 893, H. 140, Hi. 833, BN. 102, BA. 100, Ai. 980, Nh. 50, Nw. 23, Ni. 460, Ow. 39, Oh. 34, Oi. 872, Ca. 1465.

*Hutchinson Collection. Presented,* 1873.

904. A cranium from Pasamayo : ♂.

The occiput is flattened.

C. 495, L. 160, B. 158, Bi. 988, H. 137, Hi. 856, BN. 106, BA. 106, Ai. 1000, Nh. 49, Nw. 22, Ni. 449, Ow. 40, Oh. 35, Oi. 875, Ca. 1400.

*Hutchinson Collection. Presented,* 1873.

905. A cranium from Pasamayo: ♂.

C. 493, L. 161, B. 151, Bi. 938, H. 133, Hi. 826, BN. 95, BA. 98, Ai. 1032, Nh. 50, Nw. 21, Ni. 420, Ow. 36, Oh. 34, Oi. 944, Ca. 1330.

*Hutchinson Collection.* *Presented*, 1873.

906. A cranium from Pasamayo: ♂.

The occiput has been flattened.

C. 483, L. 160, B. 145, Bi. 906, H. 131, Hi. 819, BN. 99, BA. 108, Ai. 1091, Nh. 50, Nw. 24, Ni. 480, Ow. 38, Oh. 34, Oi. 895, Ca. 1320.

*Hutchinson Collection.* *Presented*, 1873.

907. A cranium from Pasamayo: ♀.

C. 480, L. 159, B. 150, Bi. 943, H. 130, Hi. 818, BN. 94, BA. 95, Ai. 1011, Nh. 47, Nw. 21, Ni. 447, Ow. 39, Oh. 35, Oi. 897, Ca. 1360.

*Hutchinson Collection.* *Presented*, 1873.

908. A cranium from Pasamayo.

The occiput has been flattened.

C. 506, L. 163, B. 163, Bi. 1000, H. 140, Hi. 859, BN. 103, BA. 100, Ai. 971, Nh. 47, Nw. 23, Ni. 489, Ow. 38, Oh. 33, Oi. 868, Ca. 1410.

*Hutchinson Collection.* *Presented*, 1873.

909. A cranium from Pasamayo.

C. 473, L. 158, B. 141, Bi. 892, H. 123, Hi. 778, BN. 95, BA. 100, Ai. 1053, Nh. 46, Nw. 23, Ni. 500, Ow. 38, Oh. 33, Oi. 868, Ca. 1080.

*Hutchinson Collection.* *Presented*, 1873.

910. A cranium from Pasamayo.

C. 487, L. 167, B. 140, Bi. 838, H. 130, Hi. 778, BN. 99, BA. 103, Ai. 1040, Nh. 46, Nw. 21, Ni. 457, Ow. 36, Oh. 32, Oi. 889, Ca. 1260.

*Hutchinson Collection.* *Presented*, 1873.

911. A cranium from Pasamayo.

There are large exostoses in both auditory meatuses.

C. 485, L. 170, B. 139, Bi. 818, H. 133, Hi. 782, BN. 95, BA. 92, Ai. 968, Nh. 46, Nw. 24, Ni. 522, Ow. 39, Oh. 33, Oi. 846, Ca. 1310.

*Hutchinson Collection.* *Presented*, 1873.

912. A cranium from Pasamayo : ♀.

It is metopic; and the occiput has been slightly flattened.

C. 485, L. 154, B. 152, Bi. 987, H. 129, Hi. 838, BN. 91, BA. 98, Ai. 1077, Nh. 47, Nw. 21, Ni. 447, Ow. 37, Oh. 35, Oi. 946, Ca. 1280.

*Hutchinson Collection. Presented,* 1873.

913. A cranium from Pasamayo : ♀.

C. 478, L. 161, B. 145, Bi. 901, H. 124, Hi. 770, BN. 90, BA. 95, Ai. 1056, Nh. 45, Nw. 21, Ni. 467, Ow. 35, Oh. 30, Oi. 857, Ca. 1165.

*Hutchinson Collection. Presented,* 1873.

914. A cranium from Pasamayo: ♀.

The occiput appears to have been flattened.

C. 460, L. 150, B. 144, Bi. 960, H. 124, Hi. 827, BN. 93, Nh. 51, Nw. 22, Ni. 431, Ow. 36, Oh. 36, Oi. 1000, Ca. 1125.

*Hutchinson Collection. Presented,* 1873.

915. A cranium from Pasamayo : ♀.

C. 482, L. 163, B. 138, Bi. 847, H. 128, Hi. 785, BN. 98, BA. 102, Ai. 1041, Nh. 46, Nw. 25, Ni. 543, Ow. 37, Oh. 34, Oi. 919, Ca. 1260.

*Hutchinson Collection. Presented,* 1873.

916. A skull from Pasamayo : ♀.

Its natural form appears to have been altered by pressure on the vertex.

C. 487, L. 160, B. 148, Bi. 925, H. 119, Hi. 744, BN. 92, BA. 94, Ai. 1022, Nh. 50, Nw. 22, Ni. 440, Ow. 38, Oh. 34, Oi. 895, Ca. 1190.

*Hutchinson Collection. Presented,* 1873.

917. A cranium from Pasamayo : ♀.

A very unsymmetrical and probably artificially deformed cranium.

C. 487, L. 157, B. 150, Bi. 955, H. 125, Hi. 796, BN. 97, Ow. 38, Oh. 35, Oi. 921, Ca. 1200.

*Hutchinson Collection. Presented,* 1873.

918. A cranium from Pasamayo : ♀.

The calvarial sutures are entirely obliterated. The occiput appears to have been flattened.

C. 477, L. 152, B. 154, Bi. 1013, H. 134, Hi. 882, BN. 97, BA. 97, Ai. 1000, Nh. 51, Nw. 24, Ni. 471, Ow. 39, Oh. 35, Oi. 897, Ca. 1220.

*Hutchinson Collection.* *Presented,* 1873.

919. A cranium from Pasamayo: ♀.

C. 484, L. 158, B. 145, Bi. 918, H. 128, Hi. 810, BN. 93, BA. 95, Ai. 1022, Nh. 46, Nw. 23, Ni. 500, Ow. 38, Oh. 36, Oi. 947, Ca. 1225.

*Hutchinson Collection.* *Presented,* 1873.

920. A cranium from Pasamayo: ♀.

C. 492, L. 160, B. 155, Bi. 969, H. 130, Hi. 813, BN. 95, BA. 97, Ai. 1021, Nh. 47, Nw. 20, Ni. 426, Ow. 38, Oh. 36, Oi. 947, Ca. 1380.

*Hutchinson Collection.* *Presented,* 1873.

921. A cranium from Pasamayo: ♀.

C. 480, L. 162, B. 143, Bi. 883, H. 132, Hi. 815, BN. 95, BA. 92, Ai. 968, Nh. 45, Nw. 19, Ni. 422, Ow. 38, Oh. 32, Oi. 842, Ca. 1380.

*Hutchinson Collection.* *Presented,* 1873.

922. A mutilated cranium from Pasamayo: ♀.

It is metopic; and the squamosals join the frontals on both sides.

C. 465, L. 159, B. 133, Bi. 836, H. 124, Hi. 780, BN. 95, Ca. 1050.

*Hutchinson Collection.* *Presented,* 1873.

923. The cranium of a young person from Pasamayo: ♂.

The basilar suture is not completely consolidated; and the last molars are not fully in place.

C. 482, L. 165, B. 138, Bi. 836, H. 128, Hi. 776, BN. 99, BA. 108, Ai. 1091, Nh. 49, Nw. 23, Ni. 469, Ow. 38, Oh. 34, Oi. 895, Ca. 1270.

*Hutchinson Collection.* *Presented,* 1873.

924. The skull of a young person from Pasamayo.

The basilar suture is open; and the third molars are not yet in place.

C. 485, L. 160, B. 147, Bi. 919, H. 124, Hi. 775, BN. 85, BA. 85, Ai. 1000, Nh. 46, Nw. 24, Ni. 522, Ow. 36, Oh. 35, Oi. 972, Ca. 1370.

*Hutchinson Collection.* *Presented,* 1873.

925. The cranium of a child from Pasamayo.

It has been subjected to oblique occipital compression. The milk-molars are in place, with the first permanent molars.

C. 460, L. 148, B. 142, Bi. 959, H. 110, Hi. 750, BN. 87, BA. 89, Ai. 977, Nh. 45, Nw. 22, Ni. 489, Ow. 35, Oh. 32, Oi. 914.

*Hutchinson Collection. Presented,* 1873.

926. The cranium of a young person from Pasamayo.

The basilar suture is open, and the third molars not fully developed. This cranium is of a different type from all the foregoing from the same locality, being more elongated and narrow, and having a transverse postcoronal depression.

C. 463, L. 166, B. 125, Bi. 753, H. 123, Hi. 741, BN. 90, BA. 87, Ai. 967, Nh. 45, Nw. 22, Ni. 489, Ow. 35, Oh. 32, Oi. 914.

*Hutchinson Collection. Presented,* 1873.

The seven following specimens were obtained from a *huaca* or ancient burying-ground near Santos, to the north of Callao. "They are considered by Mr. Hutchinson to be most likely of the tribe of Chinchas or Huanchas, or perhaps, as he surmises, of Quichuas or Aymaras; all of which tribes he states are now probably absorbed into the Cholos, a *mestizo* or mixed race"*.

927. A cranium from Santos : ♂.

C. 492, L. 168, B. 143, Bi. 851, H. 137, Hi. 815, BN. 100, Nh. 52, Nw. 25, Ni. 482, Ow. 39, Oh. 34, Oi. 872, Ca. 1290.

*Hutchinson Collection. Presented,* 1873.

928. A cranium from Santos : ♂.

The occipital region has been obliquely flattened. The right lateral upper incisor is permanently retained in the alveolus.

C. 490, L. 153, B. 154, Bi. 1007, H. 131, Hi. 856, BN. 100, BA. 103, Ai. 1030, Nh. 46, Nw. 23, Ni. 500, Ow. 37, Oh. 32, Oi. 865, Ca. 1350.

*Hutchinson Collection. Presented,* 1873.

929. A cranium from Santos : ♂.

C. 480, L. 163, B. 142, Bi. 871, H. 126, Hi. 773, BN. 101, BA. 104, Ai. 1030, Nh. 51, Nw. 24, Ni. 471, Ow. 38, Oh. 33, Oi. 868, Ca. 1290.

*Hutchinson Collection. Presented,* 1873.

* Journal of the Anthropological Institute, vol. iii. p. 87.

930. A cranium from Santos : ♂.

C. 500, L. 169, B. 141, Bi. 834, H. 137, Hi. 811, BN. 95, BA. 97, Ai. 1021, Nh. 45, Nw. 23, Ni. 511, Ow. 39, Oh. 36, Oi. 923, Ca. 1380.

*Hutchinson Collection.* ***Presented,*** 1873.

931. A cranium from Santos.

C. 458, L. 156, B. 132, Bi. 846, H. 132, Hi. 846, BN. 99, Ow. 36, Oh. 31, Oi. 861, Ca. 1010.

*Hutchinson Collection.* ***Presented,*** 1873.

932. A skull from Santos : ♀.

There is a median Wormian bone, or small "epactal," at the apex of the supraoccipital.

C. 477, L. 165, B. 135, Bi. 818, H. 132, Hi. 800, BN. 99, Nh. 51, Nw. 25, Ni. 490, Ow. 38, Oh. 35, Oi. 921, Ca. 1120.

*Hutchinson Collection.* ***Presented,*** 1873.

933. A cranium from Santos : ♀.

The atlas is ankylosed to the occiput.

C. 453, L. 160, B. 123, Bi. 769, H. 120, Hi. 750, BN. 92, BA. 95, Ai. 1033, Nh. 48, Nw. 23, Ni. 479, Ow. 35, Oh. 33, Oi. 943, Ca. 1000.

*Hutchinson Collection.* ***Presented,*** 1873.

934. A cranium with the hair still attached to the scalp, from Ancon.

"At Ancon, all the graves contain either pottery, or cloth, or pieces of fish-nets, or needles for manufacturing nets, or lace-work, or bags that resemble reticules for ladies."

BN. 92, BA. 96, Ai. 1043, Nh. 43, Nw. 23, Ni. 535, Ow. 36, Oh. 33, Oi. 917.

*Hutchinson Collection.* ***Presented,*** 1873.

935. A skull from Ancon : ♂.

C. 500, L. 176, B. 140, Bi. 795, H. 135, Hi. 767, BN. 104, BA. 106, Ai. 1019, Nh. 50, Nw. 26, Ni. 520, Ow. 38, Oh. 33, Oi. 868, Ca. 1300.

*Hutchinson Collection.* ***Presented,*** 1873.

936. A skull from Ancon : ♂.

C. 516, L. 180, B. 146, Bi. 811, H. 143, Hi. 794, BN. 102, BA. 103, Ai. 1010, Nh. 53, Nw. 24, Ni. 453, Ow. 40, Oh. 37, Oi. 925, Ca. 1600.

*Hutchinson Collection.* ***Presented,*** 1873.

937. A skull from Ancon : ♂.

C. 514, L. 178, B. 153, Bi. 860, H. 134, Hi. 753, BN. 103, BA. 106, Ai. 1029, Nh. 50, Nw. 23, Ni. 460, Ow. 38, Oh. 34, Oi. 895, Ca. 1410.

*Hutchinson Collection. Presented,* 1873.

938. A skull from Ancon: ♂.

There is a distinct "interparietal;" and numerous Wormian bones are present in the lambdoidal suture.

C. 486, L. 168, B. 140, Bi. 833, H. 135, Hi. 804, BN. 97, BA. 98, Ai. 1010, Nh. 53, Nw. 26, Ni. 491, Ow. 37, Oh. 34, Oi. 919, Ca. 1280.

*Hutchinson Collection. Presented,* 1873.

939. A skull from Ancon : ♂.

C. 470, L. 152, B. 145, Bi. 954, H. 119, Hi. 783, BN. 89, BA. 93, Ai. 1045, Nh. 48, Nw. 23, Ni. 479, Ow. 37, Oh. 34, Oi. 919, Ca. 1110.

*Hutchinson Collection. Presented,* 1873.

940. A skull from Ancon: ♂.

C. 495, L. 173, B. 142, Bi. 821, H. 135, Hi. 780, BN. 102, BA. 98, Ai. 961, Nh. 52, Nw. 22, Ni. 423, Ow. 38, Oh. 34, Oi. 895, Ca. 1300.

*Hutchinson Collection. Presented,* 1873.

941. A cranium from Ancon : ♂.

C. 508, L. 173, B. 150, Bi. 867, H. 140, Hi. 809, BN. 102, Nh. 50, Nw. 24, Ni. 480, Ow. 40, Oh. 34, Oi. 850, Ca. 1430.

*Hutchinson Collection. Presented,* 1873.

942. A cranium from Ancon : ♂.

C. 480, L. 160, B. 145, Bi. 906, H. 130, Hi. 813, BN. 95, BA. 100, Ai. 1053, Nh. 50, Nw. 23, Ni. 460, Ow. 39, Oh. 36, Oi. 923, Ca. 1275.

*Hutchinson Collection. Presented,* 1873.

943. A cranium from Ancon : ♂.

It appears to have been somewhat deformed by fronto-occipital pressure.

C. 487, L. 155, B. 152, Bi. 981, H. 130, Hi. 839, BN. 93, BA. 95, Ai. 1022, Nh. 48, Nw. 23, Ni. 479, Ow. 36, Oh. 33, Oi. 917, Ca. 1300.

*Hutchinson Collection. Presented,* 1873.

944. A cranium from Ancon.

C. 482, L. 162, B. 143, Bi. 883, H. 130, Hi. 802, BN. 93, BA. 98, Ai. 1054, Nh. 50, Nw. 26, Ni. 520, Ow. 37, Oh. 35, Oi. 946, Ca. 1130.

*Hutchinson Collection.* *Presented,* 1873.

945. A cranium from Ancon.

C. 486, L. 166, B. 141, Bi. 849, H. 127, Hi. 765, BN. 92, BA. 94, Ai. 1022, Nh. 46, Nw. 21, Ni. 457, Ow. 36, Oh. 33, Oi. 917, Ca. 1100.

*Hutchinson Collection.* *Presented,* 1873.

946. A skull from Ancon.

The right squamosal joins the frontal.

C. 486, L. 160, B. 145, Bi. 906, H. 130, Hi. 813, BN. 96, BA. 98, Ai. 1021, Nh. 48, Nw. 23, Ni. 479, Ow. 39, Oh. 33, Oi. 846, Ca. 1300.

*Hutchinson Collection.* *Presented,* 1873.

947. A cranium from Ancon.

C. 475, L. 156, B. 144, Bi. 923, H. 125, Hi. 801, BN. 92, Nh. 47, Nw. 23, Ni. 489, Ow. 38, Oh. 33, Oi. 868, Ca. 1130.

*Hutchinson Collection.* *Presented,* 1873.

948. A cranium from Ancon.

C. 470, L. 149, B. 139, Bi. 933, H. 123, Hi. 825, BN. 90, BA. 92, Ai. 1022, Nh. 47, Nw. 21, Ni. 447, Ow. 36, Oh. 31, Oi. 861, Ca. 1160.

*Hutchinson Collection.* *Presented,* 1873.

949. A cranium from Ancon : ♀.

C. 474, L. 163, B. 137, Bi. 840, H. 124, Hi. 761, BN. 94, BA. 100, Ai. 1064, Nh. 50, Nw. 24, Ni. 480, Ow. 38, Oh. 35, Oi. 921, Ca. 1130.

*Hutchinson Collection.* *Presented,* 1873.

950. A cranium from Ancon : ♀.

It has a lozenge-shaped epactal bone.

C. 462, L. 155, B. 139, Bi. 897, H. 122, Hi. 787, BN. 93, BA. 98, Ai. 1054, Nh. 45, Nw. 21, Ni. 467, Ow. 38, Oh. 34, Oi. 895, Ca. 1080.

*Hutchinson Collection.* *Presented,* 1873.

951. A cranium from Ancon : ♀.

The calvarial sutures are remarkably simple. The left third molar is displaced upwards and outwards.

C. 490, L. 158, B. 148, Bi. 937, H. 133, Hi. 842, BN. 94, BA. 95, Ai. 1011, Nh. 50, Nw. 23, Ni. 460, Ow. 35, Oh. 34, Oi. 971, Ca. 1260.

*Hutchinson Collection. Presented,* 1873.

952. A cranium from Ancon : ♀.

The lambdoidal suture is very complex, and contains numerous Wormian ossicles.

C. 492, L. 165, B. 145, Bi. 879, H. 124, Hi. 756, BN. 94, BA. 94, Ai. 1000, Nh. 49, Nw. 20, Ni. 408, Ow. 35, Oh. 34, Oi. 971, Ca. 1300.

*Hutchinson Collection. Presented,* 1873.

953. A cranium from Ancon : ♀.

Most of the teeth have been lost during life, and the lower ends of the coronal sutures are obliterated.

C. 490, L. 160, B. 149, Bi. 931, H. 134, Hi. 838, BN. 98, Nh. 51, Nw. 23, Ni. 451, Ow. 36, Oh. 36, Oi. 1000, Ca. 1300.

*Hutchinson Collection. Presented,* 1873.

954. The skull of a young person from Ancon.

The basilar suture is open, and the third molars are not yet in place.

C. 493, L. 168, B. 147, Bi. 875, H. 122, Hi. 726, BN. 93, BA. 92, Ai. 989, Nh. 49, Nw. 19, Ni. 388, Ow. 35, Oh. 36, Oi. 1029, Ca. 1280.

*Hutchinson Collection. Presented,* 1873.

955. The skull of a child from Ancon.

The milk-teeth only are in place.

C. 434, L. 151, B. 126, Bi. 834, Nh. 32, Nw. 18, Ni. 562, Ow. 31, Oh. 29, Oi. 935.

*Hutchinson Collection. Presented,* 1873.

" The five following specimens were picked up at the same place of interment, near Ancon, from which the mummified bodies had been turned up by the Spaniards at the time of the conquest, when searching for treasure. However this may be, it is curious to find that among these bones and other relics from the same place is the entire hoof of

a mule, which could only have been introduced by the Spaniards at or since the invasion of Peru by Pizarro and his followers. These crania were accompanied by some leg- and thigh-bones with the dried flesh still upon them, showing that the bodies had been buried in the usual sitting posture. Together with them also were some fragments of fishing-nets, and a wooden club and sword. The site is about twenty miles north of Callao, and about a mile from the sea-shore."

956. A cranium from a *huaca* near Ancon : ♂.

C. 497, L. 172, B. 144, Bi. 837, H. 134, Hi. 779, BN. 103, BA. 110, Ai. 1068, Nh. 50, Nw. 21, Ni. 420, Ow. 39, Oh. 38, Oi. 974, Ca. 1320.

*Hutchinson Collection. Presented,* 1873.

957. A cranium from near Ancon : ♀.

C. 490, L. 165, B. 146, Bi. 885, H. 130, Hi. 788, BN. 102, BA. 108, Ai. 1059, Nh. 51, Nw. 21, Ni. 412, Ow. 39, Oh. 34, Oi. 872, Ca. 1305.

*Hutchinson Collection. Presented,* 1873.

958. A cranium from near Ancon : ♀ ?

A remarkably heavy skull if that of a female, as its general characters indicate.

C. 472, L. 159, B. 140, Bi. 881, H. 135, Hi. 849, BN. 95, BA. 96, Ai. 1011, Nh. 45, Nw. 22, Ni. 489, Ow. 37, Oh. 33, Oi. 892, Ca. 1110.

*Hutchinson Collection. Presented,* 1873.

959. A cranium from near Ancon.

C. 480, L. 165, B. 137, Bi. 830, H. 130, Hi. 788, BN. 99, BA. 100, Ai. 1010, Nh. 47, Nw. 22, Ni. 468, Ow. 37, Oh. 33, Oi. 892, Ca. 1130.

*Hutchinson Collection. Presented,* 1873.

960. A skull from near Ancon : ♀.

It is metopic, and has very large Wormian bones in the lambdoidal suture. Its form is more elongated than that of most of the skulls of the same collection; and it has a remarkably depressed frontal region, probably occasioned by circular constriction during infancy.

C. 485, L. 170, B. 137, Bi. 806, H. 127, Hi. 747, BN. 91, BA. 95, Ai. 1044, Nh. 46, Nw. 23, Ni. 500, Ow. 37, Oh. 34, Oi. 919, Ca. 1230.

*Hutchinson Collection. Presented,* 1873.

The following thirty specimens are from Cerro del Oro, in the Canéte valley, interior to Cerro Azul, about a hundred miles south of Callao.

"The skulls from Cerro del Oro are from the brow of a hill which shows evidence of having been densely populated in former times, from the quantity of *adobe* ruins in the neighbourhood. The whole of the Canéte valley, now covered with sugar-plantations, is full of *huacas*, or mounds of interment, described by Prescott. . . . But the skulls which I send," Mr. Hutchinson goes on to say, "are not from *huacas*, but from places of interment such as are described in 'Peruvian Antiquities' by Don Mariano Eduardo Rivero" (New York, 1858), chap. viii. p. 200 *et seq.*

961. A cranium from Cerro del Oro : ♂.

C. 502, L. 176, B. 135, Bi. 767, H. 143, Hi. 813, BN. 104, BA. 102, Ai. 981, Nh. 52, Nw. 26, Ni. 500, Ow. 39, Oh. 35, Oi. 897, Ca. 1330.

*Hutchinson Collection. Presented*, 1873.

962. A cranium from Cerro del Oro : ♂.

It has been obliquely flattened posteriorly. In consequence of an injury to the base, all the usual measurements cannot be taken.

C. 496, L. 168, B. 146, Bi. 869, Nh. 49, Nw. 22, Ni. 449, Ow. 38, Oh. 33, Oi. 868, Ca. (approx.) 1450.

*Hutchinson Collection. Presented*, 1873.

963. A mutilated cranium from Cerro del Oro : ♂.

A distinct interparietal bone is separated from the supra-occipital by a transverse dentated suture.

C. 487, L. 171, B. 137, Bi. 801, H. 130, Hi. 760, BN. 95, Ca. 1260.

*Hutchinson Collection. Presented*, 1873.

964. A cranium from Cerro del Oro : ♂.

C. 510, L. 178, B. 141, Bi. 792, H. 137, Hi. 770, BN. 107, Nh. 53, Nw. 25, Ni. 472, Ow. 38, Oh. 34, Oi. 895, Ca. 1400.

*Hutchinson Collection. Presented*, 1873.

965. A cranium from Cerro del Oro : ♂.

C. 484, L. 170, B. 138, Bi. 812, H. 140, Hi. 824, BN. 106, BA. 104, Ai. 981, Nh. 53, Nw. 23, Ni. 434, Ow. 37, Oh. 37, Oi. 1000, Ca. 1310.

*Hutchinson Collection. Purchased*, 1873.

966. A cranium from Cerro del Oro : ♂.

It has been obliquely flattened posteriorly. There is an interparietal bone, and an epipteric on the right and a supra-squamosal bone on the left.

C. 496, L. 165, B. 152, Bi. 921, H. 139, Hi. 842, BN. 101, BA. 99, Ai. 980, Nh. 51, Nw. 24, Ni. 471, Ow. 39, Oh. 36, Oi. 923, Ca. 1460.

*Hutchinson Collection.* *Presented,* 1873.

967. A cranium from Cerro del Oro : ♂.

C. 502, L. 181, B. 137, Bi. 757, H. 137, Hi. 757, BN. 103, BA. 101, Ai. 981, Nh. 49, Nw. 22, Ni. 449, Ow. 37, Oh. 35, Oi. 946, Ca. 1410.

*Hutchinson Collection.* *Presented,* 1873.

968. A cranium from Cerro del Oro : ♂.

C. 498, L. 171, B. 144, Bi. 842, H. 140, Hi. 819, BN. 102, Nh. 55, Nw. 24, Ni. 436, Ow. 37, Oh. 35, Oi. 946, Ca. 1360.

*Hutchinson Collection.* *Presented,* 1873.

969. A cranium from Cerro del Oro.

C. 470, L. 165, B. 131, Bi. 794, H. 130, Hi. 788, BN. 97, BA. 98, Ai. 1010, Nh. 50, Nw. 20, Ni. 400, Ow. 36, Oh. 33, Oi. 917, Ca. 1200.

*Hutchinson Collection.* *Presented,* 1873.

970. A cranium from Cerro del Oro.

C. 500, L. 175, B. 141, Bi. 806, H. 127, Hi. 726, BN. 100, BA. 109, Ai. 1090, Nh. 52, Nw. 25, Ni. 482, Ow. 38, Oh. 37, Oi. 974, Ca. 1335.

*Hutchinson Collection.* *Presented,* 1873.

971. A cranium from Cerro del Oro.

C. 478, L. 163, B. 143, Bi. 877, H. 129, Hi. 791, BN. 100, BA. 104, Ai. 1040, Nh. 48, Nw. 22, Ni. 458, Ow. 38, Oh. 33, Oi. 868, Ca. 1210.

*Hutchinson Collection.* *Presented,* 1873.

972. A cranium from Cerro del Oro.

C. 480, L. 173, B. 132, Bi. 763, H. 138, Hi. 798, BN. 103, BA. 104, Ai. 1010, Nh. 48, Nw. 23, Ni. 479, Ow. 36, Oh. 34, Oi. 944, Ca. 1250.

*Hutchinson Collection.* *Presented,* 1873.

973. A cranium from Cerro del Oro.

C. 474, L. 163, B. 137, Bi. 840, H. 128, Hi. 785, BN. 100, BA. 100, Ai. 1000, Nh. 49, Nw. 27, Ni. 551, Ow. 36, Oh. 35, Oi. 972, Ca. 1160.

*Hutchinson Collection. Presented,* 1873.

974. A cranium from Cerro del Oro.

C. 475, L. 165, B. 134, Bi. 812, H. 132, Hi. 800, BN. 100, BA. 102, Ai. 1020, Nh. 44, Nw. 23, Ni. 523, Ow. 37, Oh. 32, Oi. 865, Ca. 1155.

*Hutchinson Collection. Presented,* 1873.

975. A cranium from Cerro del Oro: ♀.

C. 485, L. 163, B. 143, Bi. 877, H. 137, Hi. 840, BN. 96, BA. 94, Ai. 979, Nh. 48, Nw. 22, Ni. 458, Ow. 38, Oh. 35, Oi. 921, Ca. 1360.

*Hutchinson Collection. Presented,* 1873.

976. A cranium from Cerro del Oro: ♀.

C. 466, L. 160, B. 134, Bi. 838, H. 138, Hi. 863, BN. 96, BA. 93, Ai. 969, Nh. 45, Nw. 23, Ni. 511, Ow. 35, Oh. 33, Oi. 943, Ca. 1190.

*Hutchinson Collection. Presented,* 1873.

977. A cranium from Cerro del Oro: ♀.

C. 470, L. 167, B. 130, Bi. 778, H. 124, Hi. 743, BN. 97, BA. 102, Ai. 1052, Nh. 47, Nw. 25, Ni. 532, Ow. 38, Oh. 34, Oi. 895, Ca. 1120.

*Hutchinson Collection. Presented,* 1873.

978. A cranium from Cerro del Oro: ♀.

C. 478, L. 167, B. 136, Bi. 814, H. 128, Hi. 766, BN. 93, BA. 95, Ai. 1022, Nh. 47, Nw. 22, Ni. 468, Ow. 37, Oh. 34, Oi. 919, Ca. 1230.

*Hutchinson Collection. Presented,* 1873.

979. A cranium from Cerro del Oro: ♀.

C. 485, L. 170, B. 137, Bi. 806, H. 137, Hi. 806, BN. 95, BA. 93, Ai. 979, Nh. 49, Nw. 21, Ni. 429, Ow. 37, Oh. 36, Oi. 973, Ca. 1380.

*Hutchinson Collection. Presented,* 1873.

980. A cranium from Cerro del Oro: ♀.

C. 470, L. 157, B. 138, Bi. 879, H. 127, Hi. 809, BN. 91, BA. 91, Ai. 1000, Nh. 47, Nw. 25, Ni. 532, Ow. 36, Oh. 35, Oi. 972, Ca. 1380.

*Hutchinson Collection.* ***Presented,*** 1873.

981. A cranium from Cerro del Oro: ♀.

It has been flattened posteriorly.

C. 465, L. 150, B. 147, Bi. 980, H. 137, Hi. 913, BN. 100, BA. 102, Ai. 1020, Nh. 46, Nw. 21, Ni. 457, Ow. 36, Oh. 33, Oi. 917, Ca. 1300.

*Hutchinson Collection.* ***Presented,*** 1873.

982. A cranium from Cerro del Oro: ♀.

C. 484, L. 170, B. 136, Bi. 800, H. 127, Hi. 747, BN. 93, BA. 98, Ai. 1054, Nh. 49, Nw. 23, Ni. 469, Ow. 37, Oh. 34, Oi. 919, Ca. 1130.

*Hutchinson Collection.* ***Presented,*** 1873.

983. A cranium from Cerro del Oro: ♀.

It has an "interparietal" and an epipteric on the left side.

C. 473, L. 168, B. 134, Bi. 798, H. 127, Hi. 756, BN. 97, BA. 106, Ai. 1093, Nh. 51, Nw. 24, Ni. 471, Ow. 36, Oh. 32, Oi. 889, Ca. 1170.

*Hutchinson Collection.* ***Presented,*** 1873.

984. A cranium from Cerro del Oro: ♀.

C. 488, L. 174, B. 133, Bi. 764, H. 127, Hi. 730, BN. 92, BA. 90, Ai. 978, Nh. 51, Nw. 22, Ni. 431, Ow. 36, Oh. 37, Oi. 1028, Ca. 1220.

*Hutchinson Collection.* ***Presented,*** 1873.

985. A cranium from Cerro del Oro: ♀.

The left side of the lambdoidal suture is completely consolidated, the right side as well as all the other usual calvarial sutures being open. The occipital and posterior parietal regions are unsymmetrically developed, the left side being more prominent than the right. This may be due to pressure on the latter in infancy, as it is the reverse to what might have been expected if caused by premature synostosis of the left limb of the suture.

C. 453, L. 159, B. 128, Bi. 805, H. 116, Hi. 730, BN. 88, BA. 92, Ai. 1045, Nh. 48, Nw. 23, Ni. 479, Ow. 34, Oh. 33, Oi. 971, Ca. 1030.

*Hutchinson Collection. Presented,* 1873.

986. A cranium from Cerro del Oro: ♀.

C. 460, L. 157, B. 134, Bi. 854, H. 124, Hi. 790, BN. 91, BA. 92, Ai. 1011, Nh. 46, Nw. 24, Ni. 522, Ow. 37, Oh. 33, Oi. 892, Ca. 1050.

*Hutchinson Collection. Presented,* 1873.

987. A cranium from Cerro del Oro: ♀.

C. 480, L. 168, B. 135, Bi. 804, H. 127, Hi. 756, BN. 98, BA. 99, Ai. 1010, Nh. 47, Nw. 22, Ni. 468, Ow. 36, Oh. 34, Oi. 944, Ca. 1245.

*Hutchinson Collection. Presented,* 1873.

988. A cranium from Cerro del Oro: ♀.

C. 465, L. 155, B. 140, Bi 903, H. 127, Hi. 819, BN. 90, BA. 88, Ai. 978, Nh. 46, Nw. 22, Ni. 478, Ow. 34, Oh. 32, Oi. 941, Ca. 1140.

*Hutchinson Collection. Presented,* 1873.

989. A cranium from Cerro del Oro: ♀.

C. 470, L. 160, B. 139, Bi. 869, H. 129, Hi. 806, BN. 93, BA. 102, Ai. 1097, Nh. 47, Nw. 22, Ni. 468, Ow. 37, Oh. 37, Oi. 1000, Ca. 1160.

*Hutchinson Collection. Presented,* 1873.

990. The cranium of a child from Cerro del Oro.

The milk-molars and the first permanent molars are in place. The occiput is unusually prominent; and there is a distinct interparietal bone. Both the squamosals reach the frontals by means of a processus frontalis.

C. 465, L. 172, B. 129, Bi. 750, H. 127, Hi. 738, BN. 88, BA. 88, Ai. 1000, Nh. 40, Nw. 21, Ni. 525, Ow. 33, Oh. 32, Oi. 970.

*Hutchinson Collection. Presented,* 1873.

991. A deformed metopic cranium, apparently of considerable antiquity, from Peru.

The forehead has been flattened; and there is a transverse coronal depression and a large median depression behind it, causing a median anterior and two lateral posterior eminences. This condition, carried to a greater degree, is the *tête trilobée* of Gosse, only known to him from the Isle of Los Sacrificios, near Vera Cruz, Gulf of Mexico.

C. 510, L. 157, B. 162, Bi. 1032, H. 125, Hi. 796, BN. 99, BA. 100, Ai. 1010, Nh. 53, Nw. 28, Ni. 528, Ow. 38, Oh. 36, Oi. 947, Ca. 1300.

*Presented by Henry Christy, Esq.*, 1865.

992. An ancient Peruvian cranium, from four miles east of Huacho: ♂?

"The body was found buried in sand on the side of a hill, sitting squat, elbows on knees, the hands open and covering the mouth. A loose, white, cotton winding-sheet was round the body, and an outer covering of chequework, dull blue, dull red, and dull yellow. Grains of maize and beans were near it, and bits of stick and hoop round network, possibly a flag. Probably some man of note."

The scalp had long hair, of a dark reddish colour (probably discoloured by time), attached to it, and which is preserved with the skull. There is a median lozenge-shaped Wormian bone at the apex of the supraoccipital.

C. 483, L. 165, B. 140, Bi. 848, H. 125, Hi. 758, BN. 96, BA. 101, Ai. 1052, Nh. 48, Nw. 21, Ni. 438, Ow. 38, Oh. 37, Oi. 974, Ca. 1225.

*Presented by Captain R. F. Burton*, 1869.

The four following specimens were collected by Dr. R. O. Cunningham, Naturalist to H.M.S. 'Nassau.'

993. An ancient Peruvian cranium from Huacho: ♂.

It is somewhat flattened posteriorly. The sagittal suture is partly consolidated; but the posterior molars are scarcely above the level of the alveolus.

C. 475, L. 161, B. 137, Bi. 851, H. 134, Hi. 832, BN. 99, BA. 99, Ai. 1000, Nh. 49, Nw. 24, Ni. 490, Ow. 39, Oh. 34, Oi. 872, Ca. 1175.

*Presented by the Admiralty*, 1869.

994. An ancient Peruvian cranium from Huacho : ♂.

It has a very oblique form, probably from unsymmetrical occipital pressure in infancy. The sagittal and lambdoidal sutures are partially consolidated.

C. 495, L. 171, B. 144, Bi. 842, H. 133, Hi. 778, BN. 102, BA. 99, Ai. 971, Nh. 53, Nw. 21, Ni. 396, Ow. 40, Oh. 38, Oi. 950, Ca. 1310.

*Presented by the Admiralty*, 1869.

995. An ancient Peruvian cranium from Huacho : ♀.

C. 485, L. 155, B. 150, Bi. 968, H. 130, Hi. 839, BN. 94, BA. 98, Ai. 1041, Nh. 49, Nw. 24, Ni. 490, Ow. 37, Oh. 35, Oi. 946, Ca. 1260.

*Presented by the Admiralty*, 1869.

996. A cranium from the Temple of the Sun, Pachacamac : ♂.

It is very unsymmetrical, probably from pressure in infancy. The palate-bones and posterior part of the vomer present an apparently congenital deficiency.

C. 500, L. 170, B. 146, Bi. 859, H. 132, Hi. 776, BN. 105, BA. 107, Ai. 1019, Nh. 54, Nw. 23, Ni. 426, Ow. 38, Oh. 36, Oi. 947, Ca. 1310.

*Presented by the Admiralty*, 1869.

997. An ancient Peruvian skull, of a more elongated type than most of the foregoing : ♂?

Taken by Mr. Whitely from a cavern which contained about 300 skulls, thirty miles from Cuzco. The calvarial sutures are partially obliterated. It presents no signs of having been artificially deformed.

C. 492, L. 170, B. 136, Bi. 800, H. 128, Hi. 753, BN. 94, BA. 97, Ai. 1032, Nh. 44, Nw. 23, Ni. 523, Ow. 38, Oh. 32, Oi. 842, Ca. 1230.

*Purchased*, 1870.

998. An artificially-deformed Peruvian skull.

Taken from the same cavern as the last.

It is elongated by constriction behind the coronal suture, but flattened and, as it were, truncated behind.

C. 482, L. 170, B. 130, Bi. 765, H. 134, Hi. 788, BN. 93, BA. 96, Ai. 1032, Nh. 48, Nw. 24, Ni. 500, Ow. 36, Oh. 32, Oi. 889, Ca. 1310.

*Purchased*, 1870.

999. A remarkably flattened cranium from Pisagua, in Peru: ♂.

From an ancient Indian burial-place, disturbed in excavating for a railway.

In this and the next specimen both external auditory meatuses are nearly closed by bony growths.

C. 505, L. 174, B. 144, Bi. 828, H. 129, Hi. 741, BN. 87, BA. 97, Ai. 1115, Nh. 52, Nw. 25, Ni. 482, Ow. 37, Oh. 35, Oi. 946, Ca. 1355.

*Presented by Lieut. George A. Giffard, R.N.*, 1879.

1000. A flattened cranium from Pisagua, in Peru: ♂.

The base of the cranium is broken.

C. 475, L. 164, B. 137, Bi. 835, Nh. 53, Nw. 25, Ni. 472, Ow. 38, Oh. 37, Oi. 974, Ca. 1230.

*Presented by Lieut. George A. Giffard, R.N.*, 1879.

1001. A skull from an ancient burial-place in the island of Titicaca, situated in the Lake of Chucuito, or Titicaca: ♀. O. C. 5415.

It has been elongated during infancy by a constricting band passing behind the coronal suture and the mastoid processes, which has left an evident depression around the cranium.

C. 480, L. 170, B. 125, Bi. 735, H. 135, Hi. 794, BN. 94, BA. 96, Ai. 1021, Nh. 48, Nw. 22, Ni. 458, Ow. 35, Oh. 37, Oi. 1057, Ca. 1230.

*Presented by Earl Dudley*, 1828.

1002. A cranium, somewhat similarly deformed, from the same locality: ♀. O. C. 5416.

C. 470, L. 163, B. 131, Bi. 804, H. 130, Hi. 798, BN. 90, BA. 98, Ai. 1089, Nh. 47, Nw. 23, Ni. 489, Ow. 34, Oh. 37, Oi. 1088, Ca. 1190.

*Presented by Earl Dudley*, 1828.

1003. A similarly deformed cranium from the same locality, with the facial portion mutilated: ♀. O. C. 5417.

C. 450, L. 163, B. 122, Bi. 748, H. 124, Hi. 761, BN. 94, BA. 100, Ai. 1064, Ow. 36, Oh. 35, Oi. 972, Ca. 1060.

*Presented by Earl Dudley*, 1828.

1004. A similarly deformed Peruvian skull: ♂. O. C. 5418.

C. 500, L. 182, B. 123, Bi. 676, H. 137, Hi. 753, BN. 101, BA. 105, Ai. 1040, Nh. 50, Nw. 24, Ni. 480, Ow. 38, Oh. 34, Oi. 895, Ca. 1400.

*Purchased*, 1844.

1005. A cranium from Titicaca, deformed by circular constriction: ♂.

It much resembles the "macrocephalous" cranium from Tiflis, No. 565. The calvarial sutures are almost entirely obliterated. There are exostoses in the external auditory meatuses, as in so many of the Peruvian skulls; and the frontal bone shows evidence of ulceration and inflammatory action.

C. 515, L. 185, B. 130, Bi. 703, H. 152, Hi. 822, BN. 116, BA. 108, Ai. 939, Nh. 56, Nw. 23, Ni. 411, Ow. 35, Oh. 34, Oi. 971, Ca. 1475.

*Presented by George Busk, Esq.*, 1865.

1006. A cranium of the elongated type, but apparently undeformed, from Titicaca: ♀. O. C. 5419.

C. 480, L. 176, B. 120, Bi. 682, H. 127, Hi. 722, BN. 95, BA. 96, Ai. 1011, Nh. 44, Nw. 22, Ni. 500, Ow. 34, Oh. 32, Oi. 941, Ca. 1180.

*Presented by Captain Tucker, R.N.*, 1849.

1007. An artificially elongated skull from the mausoleum at Patacamaya (the hundred dead), near Belen, Bolivia: ♂? O. C. 5414.

C. 510, L. 183, B. 128, Bi. 699, H. 137, Hi. 749, BN. 96, BA. 102, Ai. 1063, Nh. 51, Nw. 23, Ni. 451, Ow. 37, Oh. 37, Oi. 1000, Ca. 1460.

*Presented by J. B. Pentland, Esq.*

1008. The skull of a Peruvian: ♀.

Obtained from the sea-slope, one mile south of Arica, by Dr. Cruise, R.N.

C. 465, L. 155, B. 136, Bi. 877, H. 137, Hi. 884, BN. 96, BA. 100, Ai. 1042, Nh. 41, Nw. 21, Ni. 512, Ow. 35, Oh. 32, Oi. 914, Ca. 1260.

*Presented by Captain R. F. Burton*, 1869.

1009. The skull and imperfect skeleton taken from the mummy of a child found near Arica.

Obtained by Lieut. Holland, R.N., from the same spot as the last, where numerous mummified bodies were partially exposed by the effects of a great earthquake-wave washing over the burial-place. A young dog was wrapped within the same outer cloth with the child. Its skeleton is preserved in the Museum.

The skull is deformed, though not to a great degree, by compressing bandages, which passed from the nape around the forehead and across the vertex. The milk-teeth alone are in place, the crowns of the first permanent molars being still within the alveoli.

C. 442, L. 152, B. 130, Bi. 855, H. 116, Hi. 763, BN. 75, BA. 73, Ai. 973, Nh. 32, Nw. 18, Ni. 562, Ow. 29, Oh. 28, Oi. 966.

*Presented by the Rev. F. W. Holland*, 1869.

1010. The cranium of a Peruvian of the Inca race. O. C. 5422.

C. 488, L. 168, B. 143, Bi. 851, H. 139, Hi. 827, BN. 101, BA. 101, Ai. 1000, Nh. 47, Nw. 21, Ni. 447, Ow. 37, Oh. 34, Oi. 919, Ca. 1390.

*Presented by Alexander Nasmyth, Esq.*, 1837.

1011. The cranium of a Peruvian of the Inca race. O. C. 5423.

C. 482, L. 167, B. 140, Bi. 838, H. 126, Hi. 754, BN. 94, BA. 98, Ai. 1043, Nh. 48, Nw. 22, Ni. 458, Ow. 35, Oh. 35, Oi. 1000, Ca. 1220.

*Presented by Alexander Nasmyth, Esq.*, 1837.

1012. The skull of a modern Peruvian child from the valley of Copyapo, thirty-three leagues from the coast. O. C. 5425.

The milk-molars are retained; but the anterior permanent incisors and the first permanent molars are in place. The child has been the subject of chronic hydrocephalus, whereby the cranium has become unusually expanded. Posteriorly it shows the flattening produced by the resting-board.

C. 500, L. 162, B. 160, Bi. 988, H. 135, Hi. 833, BN. 88, BA. 82, Ai. 932, Nh. 42, Nw. 20, Ni. 476, Ow. 34, Oh. 33, Oi. 971.

*Purchased*, 1843.

1013. The articulated skeleton of a young female Peruvian.

This and the following were prepared from bodies found by the donor dried in a sitting posture, with the hands between the legs, in an ancient burial-ground at Chiuchiu, on the road from Cobija to Caracolis, Bolivia. Photographs of the bodies as they appeared before maceration are preserved with them. They were extremely fat; and both have punctured wounds, made by some sharp instrument, through the frontal bone, which (as the dried skin showed corresponding marks of injury) had probably been made during life. A similar wound is seen in the frontal bone of No. 991.

The skulls of both appear to have suffered somewhat from fronto-occipital pressure during infancy.

The epiphyses of the upper end of the humerus, the lower end of the radius and ulna, and the lower end of the femur have not yet united to the shafts. The basilar suture of the cranium is consolidated; but the third molar teeth are not yet in place.

Height of skeleton 4 feet 11 inches=1498, clavicle 138, humerus 287, radius 225, femur 409, tibia 343.

Cranium: C. 465, L. 153, B. 141, Bi. 922, H. 130, Hi. 850, BN. 88, BA. 88, Ai. 1000, Nh. 50, Nw. 24, Ni. 480, Ow. 35, Oh. 37, Oi. 1057, Ca. 1230.

*Presented by Reginald J. G. Leigh, Esq.*, 1873.

1014. The articulated skeleton of a young female Peruvian.

Taken from the same burial-ground and at the same time as the last.

The posterior molars have been acquired; but the epiphyses are in the same condition as in the other skeleton.

Height of skeleton 5 feet=1522, clavicle 134, humerus 281, radius 228, femur 395, tibia 342.

Cranium: C. 471, L. 158, B. 142, Bi. 899, H. 130, Hi. 823. BN. 89, BA. 95, Ai. 1067, Nh. 46, Nw. 22, Ni. 478, Ow. 35, Oh. 33, Oi. 943, Ca. 1240.

*Presented by Reginald J. G. Leigh, Esq.*, 1873.

1015. A mutilated cranium (♀) and various other bones from Indian graves in the Coquimbo district, Chile.

Collected by Dr. R. O. Cunningham, H.M.S. 'Nassau.'

C. 473, L. 165, B. 130, Bi. 788, H. 129, Hi. 781, BN. 94, Ca. 1050.

*Presented by the Admiralty*, 1869.

## G. Patagonia.

1016. The cranium of a Patagonian : ♀.

Obtained by Dr. R. O. Cunningham from Port Melinka, Guaytecas Islands, west coast of Patagonia, north of the Chonos archipelago.

C. 495, L. 171, B. 140, Bi. 819, H. 137, Hi. 801, BN. 100, BA. 99, Ai. 990, Nh. 49, Nw. 23, Ni. 469, Ow. 38, Oh. 32, Oi. 842, Ca. 1380.

*Presented by the Admiralty*, 1869.

1017. A mutilated cranium from the same locality : ♂.

*Presented by the Admiralty*, 1869.

1018. A mutilated cranium of a young person (♀) from the same locality.

The basilar suture is open. The permanent teeth have all been acquired except the third molars.

C. 465, L. 165, B. 135, Bi. 818, H. 127, Hi. 770, BN. 93, BA. 87, Ai. 935, Nh. 45, Nw. 21, Ni. 467, Ow. 36, Oh. 31, Oi. 861.

*Presented by the Admiralty*, 1869.

1019. A lower jaw, two ossa innominata, and a scapula from the same locality. *Presented by the Admiralty*, 1869.

1020. The cranium of an Indian from the Chonos Islands : ♀?

Collected by Dr. R. O. Cunningham, H.M.S. 'Nassau.'

C. 506, L. 178, B. 141, Bi. 792, H. 134, Hi. 753, BN. 98, BA. 96, Ai. 980, Nh. 47, Nw. 24, Ni. 511, Ow. 38, Oh. 34, Oi. 895, Ca. 1305.

*Presented by the Admiralty*, 1869.

1021. The cranium of a Patagonian : ♂. O. C. 5426.

This and the following were taken from under a heap of stones on the east coast of Patagonia, near Port Melo.

C. 527, L. 179, B. 157, Bi. 877, H. 140, Hi. 782, BN. 99, BA. 105, Ai. 1061, Nh. 52, Nw. 25, Ni. 482, Ow. 42, Oh. 39, Oi. 929, Ca. 1650.

*Presented by Admiral Robert Fitzroy.*

1022. The cranium of a Patagonian : ♂. O. C. 5427.

From the same locality as the last. The natural form of this skull appears to have been somewhat modified by occipital pressure.

C. 515, L. 165, B. 163, Bi. 988, H. 138, Hi. 836, BN. 102, BA. 100, Ai. 980, Nh. 57, Nw. 21, Ni. 368, Ow. 40, Oh. 37, Oi. 925, Ca. 1510.

*Presented by Admiral Robert Fitzroy.*

1023. The mutilated cranium of a Patagonian from Sandy Point, Strait of Magellan : ♂.

Obtained by Dr. R. O. Cunningham, H.M.S. 'Nassau.'

C. 525, L. 182, B. 145, Bi. 797, Nh. 56, Nw. 26, Ni. 464, Ow. 42, Oh. 38, Oi. 905.

*Presented by the Admiralty*, 1869.

1024. The cranium of a Patagonian : ♂.

"Dug up in Patagonia by the person who gave it to Governor Robinson, and unquestionably what it professes to be."

The forehead appears to have been artificially flattened; and there is a marked depression in the upper and anterior region of each parietal bone. The calvarial sutures are remarkable for their complexity.

C. 485, L. 166, B. 146, Bi. 880, H. 132, Hi. 795, BN. 98, BA. 103, Ai. 1051, Nh. 49, Nw. 20, Ni. 408, Ow. 37, Oh. 35, Oi. 946, Ca. 1325.

*Presented by His Excellency William C. F. Robinson, Governor of the Falkland Islands*, 1869.

## H. Tierra del Fuego.

1025. A skull, with a considerable portion of the skeleton, of a male native of Tierra del Fuego. O. C. 5428 to 5440.

This skull is figured in a paper by Prof. Huxley "On the Form of the Cranium among the Patagonians and Fuegians," 'Journal of Anatomy and Physiology,' vol. ii. (1868) p. 254.

The bones of the skeleton are—five upper cervical vertebræ,

the sternum, left scapula, right clavicle, left humerus, left radius, left ulna, left os innominatum, left femur, left tibia, left fibula.

Clavicle 154, humerus, 300, radius 241, femur 427, tibia 365.

Cranium: C. 518, L. 188, B. 139, Bi. 739, H. 139, Hi. 739, BN. 107, BA. 110, Ai. 1028, Nh. 51, Nw. 21, Ni. 412, Ow. 40, Oh. 37, Oi. 925, Ca. 1420.

*Presented by Admiral Robert Fitzroy*, 1830.

1026. The calvaria of a Fuegian: ♀.

"Dug up in Fuegia by one of the crew of the Missionary schooner 'Arthur Gardiner.' Unquestionably what it professes to be."

C. 490, L. 170, B. 139, Bi. 818, H. 129, Hi. 759, BN. 98, Ca. 1210.

*Presented by His Excellency William C. F. Robinson, Governor of the Falkland Islands*, 1869.

1027. The cranium of a native of Fuegia: ♂.

C. 502, L. 179, B. 137, Bi. 765, H. 124, Hi. 693, BN. 101, BA. 107, Ai. 1059, Nh. 50, Nw. 22, Ni. 440, Ow. 38, Oh. 32, Oi. 842, Ca. 1200.

*Presented by the Rev. J. C. Lory, Chaplain at the Falkland Islands*, 1874.

## 6. *AUSTRALIA.*

### A. North Australia.

1028. The skeleton, not quite complete, of a male Australian, from Cygnet Bay, King Sound, Dampier Land. O. C. 5285 to 5303.

"The skeleton was found enveloped in three pieces of papyrus bark on a small sandy point in Cygnet Bay. All the bones were closely packed together; and the head surmounted the whole. It did not appear to have been long interred. They had evidently been packed with care. All the long bones were undermost; and the small ones were strewed in among them. The head was resting on its base, face across."—G. Grey, 'Journal of Two Expeditions of Discovery in North-west and West Australia' (1841), vol. i. p. 257.

The left squamosal joins the frontal. The nasal index is lower than that of any other Australian in the collection; and the inferior part of the face and the teeth are unusually small. The characters of the cranium, however, are those commonly met with in the race.

Clavicle 147, humerus 317, radius 249, femur 439, tibia 360.

Cranium: C. 500, L. 181, B. 125, Bi. 691, H. 135, Hi. 746, BN. 99, BA. 96, Ai. 970, Nh. 48, Nw. 23, Ni. 479, Ow. 40, Oh. 32, Oi. 800, Ca. 1250.

*Presented by Sir George Grey, K.C.B.*

1029. The cranium of an Australian, from the coast of Van Diemen's Gulf, Arnhem's Land: ♂.

It was found in a tree by Mr. B. Ninnis. The principal cranial sutures are consolidated. The squamosals almost meet the frontal on both sides.

C. 495, L. 178, B. 121, Bi. 680, H. 132, Hi. 742, BN. 100, BA. 102, Ai. 102, Nh. 48, Nw. 27, Ni. 563, Ow. 40, Oh. 32, Oi. 800, Ca. 1200.

*Purchased*, 1878.

1030. A mandible of an Australian, received with the above cranium, but belonging to a different individual.

*Purchased*, 1878.

1031. The skull of an Australian, from the coast of Van Diemen's Gulf, Arnhem's Land: ♀.

Found on the bank of a river, near the sea. The right malar bone and zygomatic arch have been broken away. The squamosals join the frontal on both sides for a space of 16 millimetres. The calvarial sutures are all open, and remarkably simple.

C. 480, L. 174, B. 120, Bi. 690, H. 126, Hi. 724, BN. 93, BA. 95, Ai. 1021, Nh. 43, Nw. 24, Ni. 558, Ow. 38, Oh. 31, Oi. 816, Ca. 1060.

*Purchased*, 1878.

The seven following specimens were collected during the surveying voyage of H.M.S. 'Fly,' Captain Blackwood, between 1842 and 1846.

1032. The separated bones of the skeleton of an adult male Australian, from the neighbourhood of Port Essington. O. C. 5185 to 5284.

In the former Catalogue the bones are individually described and compared with those of the Chimpanzee.

The right anterior incisor has been removed during life; and the alveolar cavity is obliterated. The left squamosal joins the frontal by a large *processus frontalis*. The lower end of the left tibia has suffered from inflammation and necrosis, and is united to the astragalus.

Clavicle 139; humerus, *r.* 344, *l.* 342; radius, *r.* 260, *l.* 266; femur, *r.* 478, *l.* 482; tibia, *r.* 398.

Cranium: C. 497, L. 181, B. 125, Bi. 691, H. 135, Hi. 746, BN. 107, BA. 109, Ai. 1019, Nh. 48, Nw. 26, Ni. 542, Ow. 41, Oh. 35, Oi. 854, Ca. 1150.

*Presented by Captain Philip Blackwood, R.N.*, 1846.

1033. The cranium of an Australian from Port Essington: ♂. O. C. 5317.

A very high cranium, with a greatly arched contour, but remarkably compressed, especially just behind the orbits. On the right side the squamosal joins the frontal; on the left an epipteric bone is interposed.

C. 492, L. 178, B. 124, Bi. 697, H. 143, Hi. 803, BN. 100, BA. 104, Ai. 104, Nh. 46, Nw. 26, Ni. 565, Ow. 42, Oh. 30, Oi. 714, Ca. 1200.

*Presented by J. Bete Jukes, Esq.*, 1846.

1034. The cranium of an Australian, from Port Essington: ♀. O. C. 5330.

. C. 488, L. 176, B. 128, Bi. 727, H. 128, Hi. 727, BN. 96, BA. 102, Ai. 1062, Nh. 46, Nw. 27, Ni. 587, Ow. 38, Oh. 31, Oi. 816, Ca. 1120.

*Presented by J. Bete Jukes, Esq.*, 1846.

1035. The skull of a young Australian, from Port Essington: ♂? O. C. 5309.

The basilar suture is open; and the posterior molars are not yet in place. The right anterior incisor has been removed during life.

C. 493, L. 181, B. 127, Bi. 702, H. 133, Hi. 735, BN. 95, BA. 91, Ai. 958, Nh. 45, Nw. 26, Ni. 578, Ow. 37, Oh. 31, Oi. 838.

*Presented by J. Bete Jukes, Esq.*, 1846.

1036. The cranium of an Australian somewhat younger than the preceding, from Port Essington: ♂? O. C. 5336.

The right anterior incisor has been removed during life.

C. 482, L. 176, B. 121, Bi. 688, H. 126, Hi. 716, BN. 89, BA. 89, Ai. 100, Nh. 40, Nw. 23, Ni. 575, Ow. 37, Oh. 30, Oi. 811.

*Presented by J. Bete Jukes, Esq.*, 1846.

1037. The cranium of an Australian, from Port Essington, of the same age as the last: ♂? O. C. 5335.

The right anterior incisor has been similarly removed.

C. 477, L. 175, B. 122, Bi. 697, H. 130, Hi. 743, BN. 90, BA. 89, Ai. 989, Nh. 41, Nw. 24, Ni. 585, Ow. 36, Oh. 29, Oi. 806.

*Presented by J. Bete Jukes, Esq.*, 1846.

1038. The cranium and some other bones (a rib, the right clavicle, the humeri, the right ulna, the femora and tibiæ, all wanting the epiphyses) of an Australian, about the same age as the two last, from Port Essington: ♀? O. C. 5337 to 5343.

None of the incisors have been removed during life. The mastoid processes are less developed, and the first molar (the only tooth remaining) is smaller, than in the three last. All the permanent teeth have been in place, except the third molars.

C. 472, L. 173, B. 124, Bi. 717, H. 129, Hi. 746, BN. 93, BA. 89, Ai. 957, Nh. 43, Nw. 23, Ni. 535, Ow. 34, Oh. 32, Oi. 941.

*Presented by J. Bete Jukes, Esq.*, 1846.

1039. The skull of an Australian, from Cape York : ♂.

An extremely heavy cranium, with the sutures in great part consolidated. In the middle of the palate, immediately behind the incisor teeth, is a deep oval pit, half an inch in long diameter, with sharply defined edges, in which a tumour or cyst must have lodged.

C. 514, L. 187, B. 128, Bi. 684, H. 130, Hi. 695, BN. 103, BA. 109, Ai. 1058, Nh. 51, Nw. 27, Ni. 529, Ow. 40, Oh. 35, Oi. 875, Ca. 1210.

*Presented by Lieut. R. H. Armit, R.N.*, 1870.

1040. The skull of an Australian, from Cape York : ♀.

C. 490, L. 178, B. 121, Bi. 680, H. 128, Hi. 719, BN. 99, BA. 102, Ai. 1030 Ow. 39, Oh. 35, Oi. 897, Ca. 1110.

*Presented by Lieut. R. H. Armit, R.N.*, 1870.

1041. The cranium of an Australian, from Cape York : ♀.

C. 483, L. 175, B. 128, Bi. 731, H. 126, Hi. 720, BN. 97, BA. 102, Ai. 1052, Nh. 52, Nw. 26, Ni. 500, Ow. 38, Oh. 33, Oi. 868, Ca. 1150.

*Presented by Lieut. R. H. Armit, R.N.*, 1870.

1042. A cranium, collected at the same time and from the same locality as the last three, but which presents the characters of the Polynesian rather than the Australian race *. ♂.

C. 502, L. 172, B. 142, Bi. 826, H. 142, Hi. 826, BN. 102, BA. 102, Ai. 1000, Nh. 54, Nw. 27, Ni. 500, Ow. 39, Oh. 37, Oi. 949, Ca. 1400.

*Presented by Lieut. R. H. Armit, R.N.*, 1870.

* This cranium, being obviously not that of an Australian, is omitted from the calculations of the averages of this race.

## B. Queensland.

1043. The articulated skeleton of a female Australian, from the Condamine river, Darling Downs, about 130 miles west of Brisbane.

The hands and feet are imperfect; and the coccyx is wanting; otherwise the skeleton is complete. The teeth show scarcely any signs of wear; but all the calvarial sutures are partially consolidated. The upper left lateral incisor is wanting; and the canine is in close contact with the median incisor. The socket of the right lateral incisor (which has been lost) shows that the tooth must have been of very small size.

Height of skeleton 4 feet 10·7 inches =1492; clavicle 128; humerus, *r.* 307, *l.* 298; radius, *r.* 220, *l.* 212; femur, *r.* & *l.* 419; tibia, *r.* & *l.* 340.

Cranium: C. 491, L. 180, B. 132, Bi. 733, H. 132, Hi. 733, BN. 96, BA. 96, Ai. 1000, Nh. 41, Nw. 26, Ni. 634, Ow. 38, Oh. 30, Oi. 798, Ca. 1225.

*Purchased*, 1867.

## C. New South Wales.

1044. The skeleton, not quite complete, of a male Australian, from an old native burial-ground near Port Stephens, New South Wales.

Clavicle, *r.* 136, *l.* 130; humerus, *r.* 336, *l.* 336; radius, *r.* 269, *l.* 267; femur, *r.* 473, *l.* 474; tibia, *r.* 408, *l.* 406.

Cranium: C. 532, L. 191, B. 136, Bi. 712, H. 130, Hi. 681, BN. 103, BA. 108, Ai. 1049, Nh. 49, Nw. 28, Ni. 571, Ow. 40, Oh. 31, Oi. 775, Ca. 1450.

*Purchased*, 1879.

1045. The skeleton, not quite complete, of a male Australian, from the same burial-ground near Port Stephens.

The first and second ribs of the right side are united. The lower jaw is wanting.

Humerus, *r.* 348, *l.* 343; radius, *r.* 266, *l.* 264; femur, *r.* 470, *l.* 468; tibia, *r.* 405, *l.* 405.

Cranium: C. 510, L. 184, B. 133, Bi. 723, H. 128, Hi. 696, BN. 103, BA. 112, Ai. 1087, Nh. 56, Nw. 29, Ni. 518, Ow. 46, Oh. 34, Oi. 739, Ca. 1250.

*Purchased*, 1879.

1046. The cranium of an Australian, from near Port Stephens: ♀.

The typical characters of the female Australian cranium of the lowest type are exhibited in a very marked degree in this specimen.

C. 482, L. 173, B. 127, Bi. 734, H. 123, Hi. 711, BN. 88, BA. 96, Ai. 1091, Nh. 45, Nw. 29, Ni. 644, Ow. 39, Oh. 30, Oi. 769, Ca. 1125.

*Purchased*, 1879.

1047. The skull of an Australian, from a native burial-ground a few miles from the township of Carcoar, county of Bathurst, New South Wales: ♀.

This and the following were obtained at the above-named locality by Dr. T. W. Thursfield.

C. 482, L. 172, B. 127, Bi. 738, H. 126, Hi. 733, BN. 89, BA. 97, Ai. 1090, Nh. 46, Nw. 26, Ni. 565, Ow. 38, Oh. 35, Oi. 921, Ca. 1110.

*Presented by Dr. W. Brinton*, 1864.

1048. The skull of an Australian, from near Carcoar, county of Bathurst: ♀.

C. 478, L. 174, B. 123, Bi. 707, H. 128, Hi. 736, BN. 100, BA. 104, Ai. 1040, Nh. 41, Nw. 24, Ni. 585, Ow. 38, Oh. 30, Oi. 789, Ca. 1050.

*Presented by Dr. W. Brinton*, 1864.

1049. The skull of an Australian from Carcoar, Bathurst: ♂?

C. 508, L. 182, B. 133, Bi. 731, H. 134, Hi. 736, BN. 104, BA. 95, Ai. 913, Nh. 48, Nw. 26, Ni. 542, Ow. 41, Oh. 35, Oi. 854, Ca. 1325.

*Presented by Dr. George Bennett*, 1859.

1050. The cranium of an Australian, found in a cave at Murrumbidgee, near Sydney: ♂. O. C. 5307.

C. 536, L. 193, B. 137, Bi. 710, H. 137, Hi. 710, BN. 102, BA. 102, Ai. 1000, Nh. 49, Nw. 25, Ni. 510, Ow. 41, Oh. 34, Oi. 829, Ca. 1410.

*Presented by Dr. George Bennett.*

1051. The skull of an Australian from the neighbourhood of Sydney: ♀.

Given to the donor by Dr. Stanger. The calvarial sutures are almost obliterated, and the teeth much worn.

C. 488, L. 175, B. 128, Bi. 731, H. 124, Hi. 709, BN. 94, BA. 100, Ai. 1064, Nh. 50, Nw. 28, Ni. 560, Ow. 40, Oh. 31, Oi. 775, Ca. 1080.

*Presented by George Busk, Esq.*, 1869.

1052. The skull, pelvis, some vertebræ, clavicles, humeri, a fibula, ulna, and patella of an Australian: ♀.

Obtained by the donor from "the known burial-place of a tribe of Shoalhaven Blacks settled in the Illawarra district, on the south coast of New South Wales."

The teeth are very much worn; but the calvarial sutures are only slightly consolidated.

C. 509, L. 185, B. 132, Bi. 714, H. 135, Hi. 730, BN. 95, BA. 97, Ai. 1021, Nh. 48, Nw. 26, Ni. 542, Ow. 41, Oh. 34, Oi. 829, Ca. 1275.

*Presented by Dr. Charles Taylor*, 1876.

## D. Victoria.

1053. The skull of an Australian of the Western-Port tribe (near Port Phillip): ♂. O. C. 5304.

C. 497, L. 178, B. 130, Bi. 730, H. 131, Hi. 736, BN. 97, BA. 101, Ai. 1041, Nh. 50, Nw. 27, Ni. 540, Ow. 42, Oh. 33, Oi. 786, Ca. 1160.

*Presented by Dr. Hobson.*

1054. The cranium of an Australian from the Port-Phillip district: ♂? O. C. 5314.

The large capacity, and the character of the supraorbital region, are masculine; but in the form of the base of the cranium, the small size of the mastoid processes, condyles, and posterior nares, it more resembles the female sex.

C. 508, L. 181, B. 134, Bi. 740, H. 127, Hi. 702, BN. 97, BA. 99, Ai. 1021, Nh. 44, Nw. 24, Ni. 545, Ow. 40, Oh. 30, Oi. 750, Ca. 1310.

*Presented by Dr. Hobson.*

1055. The cranium of an Australian from the Port-Phillip district : ♀. O. C. 5318.

C. 500, L. 185, B. 129, Bi. 697, H. 123, Hi. 665, BN. 96, BA. 96, Ai. 1000, Nh. 45, Nw. 26, Ni. 578, Ow. 37, Oh. 32, Oi. 865, Ca. 1175.

*Presented by Dr. Hobson.*

1056. The cranium of an Australian from Port Phillip : ♀.

C. 495, L. 176, B. 130, Bi. 739, H. 127, Hi. 722, BN. 93, BA. 94, Ai. 1011, Nh. 46, Nw. 24, Ni. 522, Ow. 37, Oh. 32, Oi. 865, Ca. 1070.

*Purchased*, 1861.

1057. The cranium of an Australian from Port Phillip : ♀.

The squamosals join the frontals on both sides. Epipteric bones are also present.

C. 475, L. 172, B. 127, Bi. 738, H. 124, Hi. 721, BN. 93, BA. 99, Ai. 1064, Nh. 44, Nw. 28, Ni. 636, Ow. 38, Oh. 29 Oi. 763, Ca. 1030.

*Purchased*, 1861.

1058. The cranium of a young Australian from Port Phillip.

The basilar suture is not closed. All the permanent teeth have been in place, except the posterior molars.

C. 464, L. 167, B. 127, Bi. 760, H. 118, Hi. 707, BN. 92, BA. 89, Ai. 967, Nh. 47, Nw. 25, Ni. 532, Ow. 37, Oh. 34, Oi. 919.

*Purchased*, 1861.

1059. The skull of an Australian from the Upper Yarra, Victoria : ♂.

C. 512, L. 187, B. 129, Bi. 690, H. 130, Hi. 695, BN. 99, BA. 96, Ai. 970, Nh. 51, Nw. 28, Ni. 549, Ow. 42, Oh. 37, Oi. 881, Ca. 1290.

*Purchased*, 1877.

1060. The skull of an Australian from the Murray river : ♂.

From the collection of Baron A. von Hügel.

C. 530, L. 191, B. 145, Bi. 759, H. 140, Hi. 733, BN. 97, BA. 102, Ai. 1052, Nh. 52, Nw. 30, Ni. 577, Ow. 41, Oh. 33, Oi. 805, Ca. 1460.

*Presented by Erasmus Wilson, Esq.*, 1879.

1061. The cranium of an Australian, found in 1842 near Port Fairy, about a hundred miles to the west of Port Phillip: ♀. O. C. 5315.

The squamosals join the frontals on both sides.

C. 478, L. 174, B. 125, Bi. 718, H. 126, Hi. 724, BN. 92, BA. 101, Ai. 1098, Nh. 45, Nw. 26, Ni. 578, Ow. 38, Oh. 33, Oi. 868, Ca. 1125.

*Presented by C. G. Burchett, Esq.*, 1844.

1062. The skull of an Australian, found among the "sand hummocks" close to the sea at Port Fairy: ♂.

The basilar suture has but recently united. The third upper molars, especially the right, are extremely small—a peculiarity very uncommon in Australians. Those of the lower jaw are normally developed. There is no trace of nasal spine.

C. 505, L. 185, B. 126, Bi. 681, H. 127, Hi. 686, BN. 109, BA. 116, Ai. 1064, Nh. 51, Nw. 29, Ni. 569, Ow. 43, Oh. 35, Oi. 814, Ca. 1185.

*Presented by Professor Huxley*, 1866.

1063. The cranium of a male Australian, from Kangatong, near Port Fairy.

"From a man killed by a musket-shot. Presented by Mr. Dawson, of that place." This and the next had been for many years in the possession of the late Dr. James Blundell.

C. 518, L. 190, B. 131, Bi. 689, H. 130, Hi. 684, BN. 99, BA. 104, Ai. 1051, Nh. 46, Nw. 27, Ni. 587, Ow. 40, Oh. 33, Oi. 825, Ca. 1250.

*Presented by Dr. G. A. F. Wilks*, 1878.

1064. The skull of an Australian, from Kangatong, near Port Fairy: ♀.

Presented to Dr. Blundell by Mr. Dawson, of that place.

C. 478, L. 172, B. 122, Bi. 709, H. 129, Hi. 750, BN. 95, BA. 94, Ai. 989, Nh. 40, Nw. 23, Ni. 575, Ow. 39, Oh. 32, Oi. 820, Ca. 1050.

*Presented by Dr. G. A. F. Wilks*, 1878.

## E. South Australia.

1065. The cranium of an Australian, from the neighbourhood of Adelaide: ♂.

C. 513, L. 183, B. 137, Bi. 741, H. 142, Hi. 768, BN. 107, BA. 107, Ai. 1040, Nh. 53, Nw. 27, Ni. 509, Ow. 38, Oh. 33, Oi. 862, Ca. 1440.

*Purchased*, 1861.

1066. The complete skeleton of an adult male Australian, from the neighbourhood of Adelaide.

Prepared in 1879, from a dried and partially decayed mummy. The mouth had been stuffed with emu's feathers, and sewn up. The anus was also sewn up; and the end of the prepuce, drawn beyond the glans, had a cord tied tightly round it. The thighs were forcibly bent upwards by the sides of the body, so that the knees were placed beyond the shoulders; the legs were tightly flexed on the thighs, the heels being placed close to the hip-joints: the forearms were crossed in front of the lower part of the abdomen, each hand resting upon the foot of the opposite side. A broad bandage of netting of native manufacture, passed horizontally round the middle of the body, retained the limbs in this position. The surface had been smeared with red pigment. After this preparation the body had probably been dried over a fire and then placed on a platform of boughs, elevated at a distance above the ground. The mummified body is figured, and its condition more fully described, in the 'Journal of the Anthropological Institute,' vol. viii. (1879). A photograph showing its condition before it was made into a skeleton is also preserved in the Museum.

The squamosal meets the frontal on the left side; on the right an epipteric is interposed. The frontal, right scapula and several of the other bones have suffered from necrosis, in the first-named case exposing the interior of the sinus.

Clavicle, *r.* 151, *l.* 152; humerus, *r.* 354, *l.* 347; radius, *r.* 269, *l.* 267; femur, *r.* 485, *l.* 490; tibia, *r.* 401, *l.* 401.

Cranium: C. 523, L. 190, B. 135, Bi. 711, H. 132, Hi. 695, BN. 105, BA. 109, Ai. 1038, Nh. 51, Nw. 26, Ni. 510, Ow. 41, Oh. 35, Oi. 854, Ca. 1250.

*Presented by Sir George Grey, K.C.B., Governor of South Australia*, 1845.

1067. The skeleton of an Australian infant, from the neighbourhood of Adelaide.

Obtained in a dried state, with the last specimen. The body and legs were in an extended position, and had apparently not undergone any process of preparation. The bregmatic fontanelle has not yet closed; and the exoccipitals are still separate from the supra- and basi-occipital. The milk-teeth have all been in place, except the posterior molars, the crowns of which are scarcely above the level of the alveolus. The frontal bone shows signs of inflammatory action.

C. 458, L. 166, B. 122, Bi. 735, H. 110, Hi. 663, BN. 75, BA. 72, Ai. 960, Nh. 30, Nw. 20, Ni. 666, Ow. 33, Oh. 30, Oi. 909.

*Presented by Sir George Grey*, 1845.

1068. The skull of an Australian, from the neighbourhood of Adelaide: ♂. O. C. 5305.

The skull of a large, powerful, and somewhat aged man. The teeth are much worn, and the sagittal suture nearly obliterated. The ridges defining the surface of attachment of the temporal muscles are unusually well marked.

C. 523, L. 186, B. 136, Bi. 731, H. 138, Hi. 742, BN. 105, BA. 109, Ai. 1038, Nh. 52, Nw. 30, Ni. 577, Ow. 42, Oh. 35, Oi. 833, Ca. 1450.

*Presented by Sir George Grey*, 1844.

1069. The mutilated cranium of an Australian from the vicinity of Adelaide: ♂. O. C. 5331.

"It has been converted by the natives into a water-vessel. The sutures have been covered by a bituminous substance, with fragments of a nacreous shell; and a handle has been spun out of some native grass, and passed through the foramen magnum and the interorbital space which has been broken away, for the purpose of suspending this primitive work of art. The external orbital angles, from their worn and polished surface, appear to have served as the spouts of the vessel. From the size of the cranium, of the mastoid processes, and of the lambdoidal and occipital ridges, this has belonged to a powerful male. The zygomatic arches have been removed, and the fractured roots smoothly rounded off" *.

* Calvariæ from the same locality, treated in the same manner, are described and figured in the 'Thesaurus Craniorum' of Dr. Barnard Davis.

This and the following crania, which have been treated in the same manner, are remarkable for their low altitudinal index.

C. 545, L. 197, B. 141, Bi. 716, H. 125, Hi. 635, Ca. 1375 (approximately).

*Presented by Sir George Grey*, 1844.

1070. A similarly treated cranium of an Australian, from near Adelaide: ♀. O. C. 5332.

There is an unusually large Wormian bone in the left side of the lambdoidal suture.

C. 500, L. 182, B. 131, Bi. 720, H. 128, Hi. 703, Ca. 1170 (approximately).

*Presented by Sir George Grey*, 1844.

1071. A similarly treated cranium of an Australian, from near Adelaide: ♀. O. C. 5333.

The squamosal meets the frontal on the left side.

C. 495, L. 177, B. 132, Bi. 746, H. 122, Hi. 689, Ca. 1130 (approximately).

*Presented by Sir George Grey*, 1844.

1072. A similarly treated cranium of an Australian, from near Adelaide: ♂. O. C. 5334.

C. 520, L. 190, B. 134, Bi. 705, H. 124, Hi. 653, Ca. 1310 (approximately).

*Presented by Sir George Grey*, 1844.

1073. The frontal and parietal bones of an Australian from near Adelaide. O. C. 5344.

*Presented by Sir George Grey*, 1844.

1074. The mutilated cranium of an Australian, almost identical in characters and mode of preparation to No. 1069, and presumably from the same locality: ♂.

C. 547, L. 198, B. 139, Bi. 702, H. 127, Hi. 641, Ca. 1350 (approximately).

*Presented by Lady Franklin*, 1854.

1075. A smaller but similarly prepared cranium, probably from the same locality : ♀.

C. 503, L. 184, B. 132, Bi. 717, H. 119, Hi. 647, Ca. 1150 (approximately).

*Presented by Lady Franklin*, 1856.

1076. The skull and bones of the trunk (articulated) of a female Australian from the neighbourhood of Adelaide.

Brought from Australia in 1846 as a complete skeleton ; but the limbs were lost before it was received by the College.

C. 518, L. 188, B. 134, Bi. 713, H. 128, Hi. 681, BN. 99, BA. 102, Ai. 1030, Nh. 51, Nw. 31, Ni. 608, Ow. 43, Oh. 34, Oi. 791, Ca. 1320.

*Purchased*, 1878.

1077. The skull of an Australian from near Adelaide : ♂.

The nasal spine is quite rudimentary.

C. 523, L. 191, B. 132, Bi. 691, H. 134, Hi. 702, BN. 104, BA. 109, Ai. 1048, Nh. 50, Nw. 31, Ni. 620, Ow. 42, Oh. 33, Oi. 786, Ca. 1410.

*Presented by Dr. Thomas Cawley*, 1879.

1078. The cranium of an Australian from a native burial-ground at Mount Remarkable, near Port Augusta : ♂.

The calvarial sutures are almost completely obliterated ; and the teeth are much worn.

C. 493, L. 178, B. 124, Bi. 697, H. 130, Hi. 730, BN. 101, BA. 101, Ai. 1000, Nh. 48, Nw. 25, Ni. 521, Ow. 40, Oh. 32, Oi. 800, Ca. 1120.

*Presented by George Lindsay Johnson, Esq.*, 1876.

1079. The skull of an Australian from the same burial-ground as the last : ♀?

The calvarial sutures are almost entirely obliterated ; and the teeth are much worn.

C. 490, L. 180, B. 124, Bi. 689, H. 117, Hi. 650, BN. 86, BA. 94, Ai. 1091, Nh. 43, Nw. 26, Ni. 605, Ow. 39, Oh. 28, Oi. 718, Ca. 1025.

*Presented by George Lindsay Johnson, Esq.*, 1876.

## F. Western Australia.

1080. The cranium of an Australian from King George's Sound: ♂? O. C. 5319.

C. 505, L. 184, B. 130, Bi. 707, H. 130, Hi. 707, BN. 99, BA. 106, Ai. 1071, Nh. 46, Nw. 25, Ni. 543, Ow. 41, Oh. 33, Oi. 805, Ca. 1230.

*Presented by Captain Philip King, R.N.*

1081. The cranium of an Australian from King George's Sound: ♂.

C. 518, L. 190, B. 132, Bi. 695, H. 137, Hi. 721, BN. 104, BA. 111, Ai. 1067, Nh. 47, Nw. 27, Ni. 574, Ow. 43, Oh. 31, Oi. 721, Ca. 1330.

*Presented by F. Le Gros Clark, Esq.*, 1875.

1082. The skull of a male Australian from the Swan-River Settlement.

From a man known to the residents of the colony as above the ordinary average of intelligence among the natives, who was killed in a fray with some of his race about the year 1847. The frontal region is broader and more prominent than in most Australians; but the general conformation of the cranium, and especially of the face, is perfectly characteristic of the race.

C. 533, L. 193, B. 132, Bi. 684, H. 132, Hi. 684, BN. 102, BA. 102, Ai. 1000, Nh. 42, Nw. 29, Ni. 690, Ow. 40, Oh. 30, Oi. 750, Ca. 1370.

*Presented by George Busk, Esq.*, 1864.

1083. The cranium of an Australian, said to be from Swan River: ♂.

This is exceptionally round for an Australian skull. There are numerous Wormian bones in the lambdoidal suture. The squamosal and frontal meet on the right and nearly on the left side.

C. 490, L. 171, B. 132, Bi. 772, H. 130, Hi. 760, BN. 96, BA. 102, Ai. 1063, Nh. 48, Nw. 28, Ni. 583, Ow. 39, Oh. 30, Oi. 769, Ca. 1200.

*Presented by Lady Franklin.*

The exact locality from which the following specimens were obtained has not been recorded. It is probable that they are mostly from New South Wales, as the earliest district settled, and the only one from which the Hunterian specimens could have been obtained.

1084. The cranium of an Australian : ♂. O. C. 5310.

The aperture of each auditory meatus is partially filled with smooth, rounded, dense, bony growths.

C. 500, L. 183, B. 130, Bi. 710, H. 138, Hi. 754, BN. 103, BA. 109, Ai. 1058, Nh. 46, Nw. 25, Ni. 543, Ow. 42, Oh. 34, Oi. 810, Ca. 1310.

*Hunterian.*

1085. The cranium of an Australian : ♂. O. C. 5313.

C. 495, L. 177, B. 128, Bi. 723, H. 132, Hi. 746, BN. 101, BA. 109, Ai. 1079, Nh. 46, Nw. 27, Ni. 587, Ow. 40, Oh. 33, Oi. 825, Ca. 1260.

*Hunterian.*

1086. The cranium, wanting the right temporal bone, of an Australian : ♀. O. C. 5312.

Although that of an adult (the basilar suture being closed, and the right third molar fully in place), both posterior milk-molars are retained, with no appearance of absorption of their long roots. The premolars, which should succeed them, are fully developed, but are concealed and obliquely placed within the alveolus. The left third molar is still below the level of the alveolus; and to its outer side was a small supplemental tooth (now lost) in a distinct compartment of the bone. (See description in O. C. p. 825.)

C. 482, L. 172, B. 128, Bi. 744, H. 130, Hi. 756, BN. 95, BA. 101, Ai. 1063, Nh. 43, Nw. 26, Ni. 605, Ow. 38, Oh. 30, Oi. 789, Ca. 1210.

*Hunterian.*

1087. The cranium of an Australian : ♂. O. C. 5311.

C. 523, L. 185, B. 137, Bi. 741, H. 143, Hi. 773, BN. 105, BA. 110, Ai. 1048, Nh. 52, Nw. 27, Ni. 519, Ow. 40, Oh. 32, Oi. 800, Ca. 1375.

*British Museum.*

1088. The articulated skeleton of an adult female Australian. O. C. 5184.

The squamosal joins the frontal on both sides.
Height of skeleton 5 feet 2 inches=1575.
Clavicle 136, humerus 318, radius 243, femur 443, tibia 372.
Cranium: C. 504, L. 183, B. 132, Bi. 721, H. 129, Hi. 705, BN. 97, BA. 99, Ai. 1021, Nh. 46, Nw. 26, Ni. 565, Ow. 38, Oh. 31, Oi. 816, Ca. 1260.

*Presented by the Zoological Society*, 1831.

1089. The skull of an Australian: ♂. O. C. 5306.

C. 506, L. 186, B. 127, Bi. 683, H. 133, Hi. 715, BN. 96, BA. 104, Ai. 1083, Nh. 41, Nw. 28, Ni. 683, Ow. 40, Oh. 29, Oi. 725, Ca. 1220.

*Presented by Dr. George Bennett.*

1090. The skull of an Australian: ♂. O. C. 5308.

C. 523, L. 190, B. 132, Bi. 695, H. 133, Hi. 700, BN. 106, BA. 102, Ai. 962, Nh. 50, Nw. 27, Ni. 540, Ow. 42, Oh. 36, Oi. 857, Ca. 1310.

*Presented by Dr. Hobson.*

1091. The skull of an Australian: ♂. O. C. 5316.

The right anterior incisor has been removed during life, and the alveolus obliterated. On the right side the roots of the teeth have been exposed, showing the outer roots of the premolars to be single and those of the large true molars double. These teeth are figured in Owen's 'Odontography,' plates 118 and 119. The squamosals almost meet the frontal on both sides.

C. 508, L. 185, B. 133, Bi. 719, H. 131, Hi. 708, BN. 92, BA. 97, Ai. 1054, Nh. 48, Nw. 25, Ni. 521, Ow. 41, Oh. 31, Oi. 756, Ca. 1240.

*Purchased*, 1839.

1092. The skull of an Australian: ♀.

The squamosals almost join the frontal on both sides.
C. 495, L. 180, B. 132, Bi. 733, H. 130, Hi. 722, BN. 99, BA. 106, Ai. 1071, Nh. 45, Nw. 30, Ni. 667, Ow. 39, Oh. 30, Oi. 796, Ca. 1165.

*Presented by Lady Franklin*, 1854.

1093. The calvaria of an Australian : ♂.

C. 513, L. 183, B. 139, Bi. 760, H. 136, Hi. 743, Ca. 1330.
*Presented by Lady Franklin*, 1854.

1094. The cranium of an Australian: ♂.

C. 528, L. 190, B. 140, Bi. 737, H. 140, Hi. 737, BN. 99, BA. 97, Ai. 980, Nh. 50, Nw. 31, Ni. 620, Ow. 43, Oh. 35, Oi. 814, Ca. 1415.

1095. The cranium, wanting the occipital bone, of a young Australian.

All the permanent teeth, except the third molars, have been fully in place. The basilar suture is not united.
*Purchased*, 1856.

## 7. *MELANESIA* *.

### A. Tasmania.

1096. The articulated skeleton of an adult male native of Tasmania.

Obtained from a grave on Flinders Island, where the remnant of the aboriginal population, when removed from Tasmania, was located between 1832 and 1847, and where nearly two hundred of them died.

The central upper incisors have been removed during life. The last molars are very irregularly placed.

Height of skeleton 5 feet 3·3 inches = 1607.

Clavicle, *r.* 154, *l.* 158; humerus, *r.* 324, *l.* 323; radius, *r.* 263, *l.* 261; femur, *r.* 463, *l.* 469; tibia, *r.* 390, *l.* 388.

Cranium: C. 516, L. 183, B. 138, Bi. 754, H. 134, Hi. 732, BN. 97, Nh. 49, Nw. 30, Ni. 612, Ow. 41, Oh. 32, Oi. 780, Ca. 1400.

*Presented by Morton Allport, Esq.*, 1872.

1097. The articulated skeleton of an adult female Tasmanian.

The following account of this woman is extracted from Bonwick's 'Last of the Tasmanians' (1870), where a portrait of her, from a photograph taken in 1866, is given. She was one of the last survivors of the race. "Bessy Clark, called after the wife of the catechist, was then (1859) under forty years of age, and was the best-looking of the sisterhood. There was no projection of the lower jaw; and her good humour gave a pleasant expression to her swarthy features. Her native name was 'Pinnano-bathae' (the Kangaroo-head). She had not led a forest life with her people, having been rescued in early childhood. When Mr. G. A. Robinson was out with his son and others seeking after the Macquarie-Harbour tribe, a family were disturbed at their fire so suddenly that a mother in her fright forgot her little girl, whom she had left near the warm embers. The deserted infant was placed on the back of young Robinson, and ultimately confided to the care of a country woman on Flinders Island. When old enough she was sent for education

* This division is extended beyond the limits usually assigned to it by geographers, for reasons explained in the Introduction.

and training to the orphan school at Newtown, near Hobart Town. It was thought she would there be removed from the temptations of aboriginal life. Subsequently she was removed to Flinders, and married to Augustus the Magnificent." In 1847 she accompanied the remnant of her race from Flinders Island to Oyster Cove, where she died February 12th, 1867, being probably about forty years of age.

The upper incisors have been lost during life; and the posterior molars are irregularly developed. The frontal suture is persistent. The sternum and left hand of the skeleton are missing, as are many of the phalanges of all the extremities.

Height of skeleton 4 feet 8 inches=1422.

Clavicle, *r.* 130, *l.* 130; humerus, *r.* 274, *l.* 275; radius, *r.* 212, *l.* 217; femur, *r.* 397, *l.* 397; tibia, *r.* 318, *l.* 311.

Cranium: C. 492, L. 175, B. 133, Bi. 760, H. 119, Hi. 680, BN. 87, Nh. 46, Nw. 27, Ni. 587, Ow. 37, Oh. 32, Oi. 865, Ca. 1110.

*Presented by Morton Allport, Esq.*, 1872.

1098. The cranium of a Tasmanian: ♂. O. C. 5324.

C. 504, L. 180, B. 137, Bi. 761, H. 139, Hi. 772, BN. 94, BA. 106, Ai. 1128, Nh. 44, Nw. 26, Ni. 591, Ow. 42, Oh. 30, Oi. 714, Ca. 1275.

*Hunterian.*

1099. The skull of a Tasmanian: ♂. O. C. 5320.

Though no trace of the basilar suture remains, and the lambdoidal suture is partly consolidated, the posterior molars are not fully in place. In many of the Tasmanian skulls these teeth appear to be developed at a comparatively late period, and are often irregularly placed.

C. 512, L. 181, B. 139, Bi. 768, H. 133, Hi. 735, BN. 102, BA. 104, Ai. 1020, Nh. 50, Nw. 29, Ni. 580, Ow. 40, Oh. 30, Oi. 750, Ca. 1330.

*Presented by Ronald Gunn, Esq.*

1100. The cranium of a Tasmanian: ♂. O. C. 5325.

A section has been made through the prominent glabella and supraorbital ridges, showing that they contain no air-sinuses, but are filled with a cancellous diploë. The teeth have been very much worn; and the calvarial sutures are partially obliterated.

C. 517, L. 188, B. 135, Bi. 718, H. 140, Hi. 745, BN. 101, BA. 104, Ai. 1030, Nh. 53, Nw. 26, Ni. 491, Ow. 38, Oh. 31, Oi. 816, Ca. 1330.

*Presented by Ronald Gunn, Esq.*

1101. The cranium of a Tasmanian : ♂.

Marked "Tasmanian warrior, killed at Brushy Plains."

C. 513, L. 183, B. 137, Bi. 749, H. 129, Hi. 705, BN. 98, BA. 100, Ai. 1020, Nh. 44, Nw. 25, Ni. 568, Ow. 39, Oh. 29, Oi. 744, Ca. 1230.

*Presented by George Busk, Esq.*, 1864.

1102. The cranium of a Tasmanian : ♂.

Brought from Tasmania by Dr. Milligan. Figured in Busk's 'Crania Typica,' pl. vi.

C. 511, L. 183, B. 140, Bi. 765, H. 127, Hi. 694, BN. 99, Nh. 49, Nw. 27, Ni. 551, Ow. 36, Oh. 28, Oi. 780, Ca. 1290.

*Presented by George Busk, Esq.*, 1869.

1103. The cranium of a Tasmanian : ♂.

This specimen was entered in the MS. catalogue as "Cranium of an Australian," but without further description or indication as to precise locality; but its characters are so decidedly Tasmanian that it has been removed to the present series. Lady Franklin resided for many years in Tasmania, when her husband was governor of that island; and it is quite probable that she may have had Tasmanian as well as Australian skulls in her collection.

C. 483, L. 173, B. 135, Bi. 780, H. 124, Hi. 717, BN. 95, BA. 98, Ai. 1032, Nh. 43, Nw. 27, Ni. 628, Ow. 37, Oh. 29, Oi. 784, Ca. 1100.

*Presented by Lady Franklin*, 1854.

1104. A cranium, described in the former Catalogue as that of a Tasmanian, but presenting somewhat exceptional characters, if really belonging to an individual of that race : ♂. O. C. 5328.

The calvarial sutures are almost obliterated, and the teeth have been worn down to stumps. A horizontal section has been made across the glabella, showing that the usual air-sinuses of that region are well developed.

C. 518, L. 188, B. 133, Bi. 707, H. 137, Hi. 729, BN. 113, BA. 110, Ai. 974, Nh. 55, Nw. 27, Ni. 491, Ow. 39, Oh. 34, Oi. 872, Ca. 1335.

*Presented by Dr. Hobson.*

1105. The cranium of a Tasmanian : ♀. O. C. 5326.

C. 478, L. 169, B. 135, Bi. 790, H. 126, Hi. 746, BN. 89, BA. 94, Ai. 1056, Nh. 41, Nw. 25, Ni. 610, Ow. 36, Oh. 30, Oi. 833, Ca. 1145.

*Hunterian.*

1106. The skull, with the atlas, of a Tasmanian : ♀. O. C. 5322.

"From Port Dalrymple, Van Diemen's Land."

Though the basilar suture has united, the posterior molars are not in place in either jaw. There are but three inferior incisors, the middle one in a line with the symphysis, and opposing the interspace of the two upper central incisors.

C. 486, L. 175, B. 127, Bi. 726, H. 127, Hi. 726, BN. 97, BA. 94, Ai. 969, Nh. 48, Nw. 25, Ni. 521, Ow. 37, Oh. 33, Oi. 892, Ca. 1180.

*Presented by Sir Everard Home, Bart.*, 1809.

1107. The cranium of a Tasmanian which has been vertically and transversely bisected : ♀. O. C. 5327 and 5763.

The basilar suture has but recently united.

C. 488, L. 176, B. 132, Bi. 750, H. 125, Hi. 710, BN. 92, BA. 90, Ai. 978, Nh. 44, Nw. 25, Ni. 568, Ow. 36, Oh. 31, Oi. 861, Ca. 1225.

*Presented by Ronald Gunn, Esq.*

1108. The skull of a Tasmanian : ♀.

From a grave in Bruni Island.

The circumstances under which this specimen was obtained are described in the following note from the donor:—"When H.M.S. 'Fly' was at Hobart Town in 1842, a young gentleman of great intelligence and adventure volunteered to accompany Mr. M'Gillivray and myself to the place of interment of the last of the aboriginal inhabitants of Tasmania who had died in their own land. I will not speak of our labours and dangers in the adventure: it was the painful occasion of the loss of two out of our three boats, with their crews of nine men. After landing,

and sleeping for several nights in the trees, we found the spot. The graves, I suppose twelve in number, were in a flat secluded place on Bruni Island, in the midst of a sombre soundless gum-tree forest. The only other sign of human beings having been near was the ruin of the house where the few unfortunate natives who survived had been confined previous to their intended transportation to Banks's Island. Tired, but determined, we dug about six feet down, and to our disappointment found ashes of a burning. We dug into another grave, and found it had been disturbed. On opening a third we were more fortunate; a layer of *Eucalyptus*-bark stopped the spade, and on being opened disclosed the body of a young female in a perfect state of preservation. The water began to flow into the grave; but we soon obtained and carried off the head, which accompanies this note."

Though quite adult, the basilar suture being united, the cranium is of very diminutive size, and shows the same slowness of development and irregularity of position of the third molars observed in many of the other Tasmanian skulls. The surface of the bone is stained of a deep brown colour by the soil or decomposing vegetable matter in which it has been laid.

C. 462, L. 163, B. 130, Bi. 798, H. 123, Hi. 755, BN. 91, BA. 91, Ai. 1000, Nh. 41, Nw. 25, Ni. 610, Ow. 37, Oh. 30, Oi. 811, Ca. 1075.

*Presented by Dr. Archibald Sibbald, R.N.*, 1854.

1109. A cranium of a Tasmanian*: ♀. O. C 5329.

It has been stained the same dark colour as the last, and may be from the same locality.

C. 494, L. 175, B. 135, Bi. 771, H. 124, Hi. 709, BN. 92, BA. 99, Ai. 1076, Nh. 45, Nw. 27, Ni. 600, Ow. 38, Oh. 31, Oi. 816, Ca. 1175.

*Presented by Ronald Gunn, Esq.*

* In the former Catalogue this is described as the "cranium of an Australian;" but its strongly marked Tasmanian characters, the fact of its having been presented by Mr. R. Gunn (who was a resident in the smaller island, and the donor of many Tasmanian but no Australian specimens), added to the circumstance that in that Catalogue the races inhabiting the two islands were not held to be distinct (as shown by No. 5345, "The cranium of an Australian child from Van Diemen's Land"), are sufficient justifications for its removal into the present series.

1110. The skull of a Tasmanian : ♀.

"From Dr. Bedford."

C. 472, L. 164, B. 131, Bi. 799, H. 122, Hi. 744, BN. 94, BA. 99, Ai. 1053, Nh. 47, Nw. 25, Ni. 532, Ow. 37, Oh. 32, Oi. 865, Ca. 1075.

*Presented by Sir Joseph D. Hooker, K.C.S.I.*, 1866.

1111. The skull of a Tasmanian, said to have been fourteen years of age : ♂? O. C. 5321.

The basilar suture is still open; and the third molars are not in place. As in No. 1106, there are but three lower incisors, the central one being placed in the median line.

C. 498, L. 177, B. 136, Bi. 768, H. 130, Hi. 734, BN. 97, BA. 99, Ai. 1021, Nh. 40, Nw. 23, Ni. 575, Ow. 36, Oh. 30, Oi. 833, Ca. 1300.

*Presented by G. J. Guthrie, Esq.*, 1825.

1112. The skull of a young Tasmanian. O. C. 5323.

The basilar suture is still open; and the last molars are not in place. There are two epipterics on the left side. On the right a "frontal process" of the squamosal nearly reaches the frontal bone.

C. 485, L. 175, B. 132, Bi. 754, H. 130, Hi. 743, BN. 93, BA. 98, Ai. 1054, Nh. 41, Nw. 27, Ni. 659, Ow. 37, Oh. 31, Oi. 838, Ca. 1200.

*Presented by Ronald Gunn, Esq.*

1113. The cranium of a female Tasmanian infant, from Port Dalrymple. O. C. 5345.

The frontal suture and fontinelle are not closed; and the milk-molars are not yet in place. The exoccipitals are wanting.

C. 430, L. 155, B. 122, Bi. 787.

*Presented by Thomas Hobbes Scott, Esq.*, 1821.

1113 A. A cranium from the South Pacific, the exact locality of which is unknown, but with characters resembling those of the Tasmanian race : ♂.

C. 491, L. 171, B. 138, Bi. 807, H. 130, Hi. 760, BN. 93, BA. 94, Ai. 1011, Nh. 44, Nw. 26, Ni. 591, Ow. 38, Oh. 31, Oi. 816, Ca. 1225.

*Presented by Sir Joseph D. Hooker, K.C.S.I.*, 1866.

## B. New-Caledonian Group.

1114. A cranium from the Isle of Pines, or Hunia, a small island off the south-east end of New Caledonia : ♂.

This skull is remarkable for its prominent malars, deep canine fossæ, long low orbits, narrow interorbital space, heavy supraciliary ridges and glabella, and short round palate. The squamosal joins the frontal on the right side, but is separated from it on the left by an epipteric bone. The crowns of the posterior molars are turned directly outwards.

C. 498, L. 180, B. 130, Bi. 722, H. 133, Hi. 739, BN. 91, BA. 94, Ai. 1033, Nh. 45, Nw. 25, Ni. 555, Ow. 39, Oh. 30, Oi. 769, Ca. 1425.

*Presented by Captain Sir J. Everard Home, Bart., R.N.*

1115. A skull from the Isle of Pines, or Hunia : ♀?

The left squamosal joins the frontal by a processus frontalis. On the right side there is an epipteric. The facial characters differ greatly from those of the last. The glabella forms no prominence. The malars are small, the palate long and narrow, and the face altogether compressed. The specimens which follow are intermediate in conformation.

C. 504, L. 186, B. 127, Bi. 683, H. 134, Hi. 720, BN. 95, BA. 104, Ai. 1095, Nh. 46, Nw. 25, Ni. 543, Ow. 38, Oh. 32, Oi. 842, Ca. 1320.

*Presented by Captain Sir J. Everard Home, Bart., R.N.*

1116. A skull from the Isle of Pines : ♀?

C. 500, L. 185, B. 122, Bi. 659, H. 132, Hi. 714, BN. 105, BA. 105, Ai. 1000, Nh. 47, Nw. 24, Ni. 511, Ow. 38, Oh. 31, Oi. 816, Ca. 1270.

*Presented by Captain Sir J. Everard Home, Bart., R.N.*

1117. A skull from the Isle of Pines : ♂?

C. 490, L. 176, B. 127, Bi. 722, H. 132, Hi. 750, BN. 93, Nh. 46, Nw. 26, Ni. 565, Ow. 39, Oh. 31, Oi. 795, Ca. 1275.

*Presented by Captain Sir J. Everard Home, Bart., R.N.*

1118. A mutilated skull from the Isle of Pines : ♂?

The squamosal joins the frontal on the right side. The squamoso-mandibular articulation has suffered extremely from rheumatic arthritis.

C. 487, L. 175, B. 133, Bi. 760, H. 140, Hi. 800, BN. 100, BA. 105, Ai. 1050, Nh. 44, Nw. 25, Ni. 568, Ow. 38, Oh. 31, Oi. 816.

*Presented by Captain Sir J. Everard Home, Bart., R.N.*

1119. A mutilated calvaria, from the Isle of Pines : ♂.

This is of much greater density, and has the ridges for muscular attachments more developed than in any of the other skulls of the series. There are exostoses in both external auditory meatuses.

C. 514, L. 182, B. 132, Bi. 725, H. 142, Hi. 780, Ca. 1275.

*Presented by Captain Sir J. Everard Home, Bart., R.N.*

1120. A collection of bones obtained with the above skulls from the Isle of Pines, consisting of portions of six individuals, four males and two females, and including one perfect male pelvis *.

*Presented by Captain Sir J. Everard Home, Bart., R.N.*

1121. The skull of a native of Lifu, the largest of the Loyalty Islands, near New Caledonia : ♂. O. C. 5399.

This skull and the three following, from the same locality, present both cranial and facial characters of the Malayo-Polynesian, rather than the Melanesian races—which accords perfectly with what is known of the external appearance and history of the people. The nasal index alone would be quite sufficient to distinguish them from any of the Melanesian or Australioid races.

C. 503, L. 175, B. 137, Bi. 783, H. 137, Hi. 783, BN. 109, BA. 106, Ai. 972, Nh. 61, Nw. 25, Ni. 410, Ow. 40, Oh. 38, Oi. 950, Ca. 1450.

*Presented by Dr. George Bennett.*

1122. The skull of a native of the Island of Lifu, Loyalty group: ♀. O. C. 5400.

The basilar suture has but recently united; and the third molars are not fully developed.

C. 485, L. 171, B. 135, Bi. 789, H. 127, Hi. 743, BN. 97, BA. 97, Ai. 1000, Nh. 48, Nw. 21, Ni. 438, Ow. 38, Oh. 36, Oi. 947, Ca. 1300.

*Presented by Dr. George Bennett.*

* These specimens must have been collected between the years 1841 and 1846, the period during which Sir James Everard Home was in command of H.M.S. 'North Star' in the Pacific.

1123. The skull of a child from the Island of Lifu. O. C. 5401.

The first permanent molars, the permanent incisors, and the milk-molars are in place.

C. 444, L. 159, B. 122, Bi. 767, H. 125, Hi. 786.

*Presented by Dr. George Bennett.*

1124. The skull of a younger child from the Island of Lifu. O. C. 5402.

The milk-dentition only has been acquired.

C. 438, L. 155, B. 125, Bi. 806.

*Presented by Dr. George Bennett.*

## C. Fijian Group.

The fourteen following specimens were obtained in August 1876, by Baron A. von Hügel, from a cave used as a burial-place by the Ngalimari tribe of Kai Colos, or Mountaineers of Fiji, at Wakuku, on the Siga Toka river, Nandronga district, in the island of Viti Levu.

1125. The skull of a Mountaineer of Viti Levu, of the Ngalimari tribe : ♂.

From Baron A. von Hügel's collection *.

C. 532, L. 197, B. 129, Bi. 655, H. 146, Hi. 741, BN. 110, BA. 110, Ai. 1000, Nh. 46, Nw. 28, Ni. 609, Ow. 40, Oh. 34, Oi. 850, Ca. 1540.

*Presented by Erasmus Wilson, Esq.*, 1879.

1126. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♂.

From Baron A. von Hügel's collection.

C. 523, L. 194, B. 120, Bi. 619, H. 141, Hi. 727, BN. 102, BA. 104, Ai. 1020, Nh. 47, Nw. 26, Ni. 553, Ow. 38, Oh. 32, Oi. 842, Ca. 1550.

*Presented by Erasmus Wilson, Esq.*, 1879.

* This collection, consisting of thirty-seven skulls of natives of islands in the Pacific Ocean, was purchased in 1879 by Mr. Erasmus Wilson, F.R.S., and by him presented to the College.

1127. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♂.

From Baron A. von Hügel's collection.

C. 531, L. 193, B. 134, Bi. 694, H. 143, Hi. 741, BN. 108, BA. 109, Ai. 1009, Nh. 54, Nw. 28, Ni. 518, Ow. 42, Oh. 35, Oi. 833, Ca. 1530.

*Presented by Erasmus Wilson, Esq.*, 1879.

1128. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♂.

From Baron A. von Hügel's collection.

C. 550, L. 203, B. 134, Bi. 660, H. 147, Hi. 724, BN. 99, BA. 104, Ai. 1051, Nh. 52, Nw. 29, Ni. 558, Ow. 41, Oh. 34, Oi. 829, Ca. 1660.

*Presented by Erasmus Wilson, Esq.*, 1879.

1129. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♂.

From Baron A. von Hügel's collection.

The squamosal joins the frontal on the left side. Most of the teeth have been lost during life.

C. 526, L. 193, B. 127, Bi. 658. H. 140, Hi. 725, BN. 103, Nh. 49, Nw. 30, Ni. 612, Ow. 39, Oh. 32, Oi. 820, Ca. 1370.

*Presented by Erasmus Wilson, Esq.*, 1879.

1130. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♂.

From Baron A. von Hügel's collection.

All the teeth have been lost during life, and the alveolar margins of both jaws absorbed.

C. 519, L. 190, B. 125, Bi. 658, H. 138, Hi. 726, BN. 103, Nh. 45, Nw. 26, Ni. 578, Ow. 38, Oh. 32, Oi. 842, Ca. 1375.

*Presented by Erasmus Wilson, Esq.*, 1879.

1131. The cranium of a mountaineer of Viti Levu, of the Ngalimari tribe : ♂.

From Baron A. von Hügel's collection.

All the teeth have been lost during life, and the alveolar walls absorbed.

C. 509, L. 186, B. 123, Bi. 661, H. 140, Hi. 753, BN. 98, Nh. 47, Nw. 28, Ni. 596, Ow. 38, Oh. 34, Oi. 895, Ca. 1350.

*Presented by Erasmus Wilson, Esq.*, 1879.

1132. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♀?

From Baron A. von Hügel's collection.

Metopic.

C. 502, L. 181, B. 126, Bi. 696, H. 142, Hi. 785, BN. 104, BA. 105, Ai. 1010, Nh. 48, Nw. 28, Ni. 583, Ow. 38, Oh. 33, Oi. 868, Ca. 1300.

*Presented by Erasmus Wilson, Esq.*, 1879.

1133. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♀.

From Baron A. von Hügel's collection.

C. 504, L. 185, B. 124, Bi. 670, H. 137, Hi. 741, BN. 96, BA. 102, Ai. 1063, Nh. 43, Nw. 24, Ni. 558, Ow. 36, Oh. 34, Oi. 944, Ca. 1380.

*Presented by Erasmus Wilson, Esq.*, 1879.

1134. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♀.

From Baron A. von Hügel's collection.

C. 512, L. 190, B. 123, Bi. 647, H. 137, Hi. 721, BN. 95, BA. 98, Ai. 1032, Nh. 44, Nw. 25, Ni. 568, Ow. 35, Oh. 34, Oi. 971, Ca. 1355.

*Presented by Erasmus Wilson, Esq.*, 1879.

1135. The skull of a mountaineer of Viti Levu, of the Ngalimari tribe : ♀.

From Baron A. von Hügel's collection.

C. 488, L. 180, B. 117, Bi. 650, H. 132, Hi. 733, BN. 97, BA. 105, Ai. 1082, Nh. 46, Nw. 25, Ni. 543, Ow. 35, Oh. 32, Oi. 914, Ca. 1250.

*Presented by Erasmus Wilson, Esq.*, 1879.

1136. The cranium of a young mountaineer of Viti Levu, of the Ngalimari tribe.

From Baron A. von Hügel's collection.

All the molars have been developed ; but the basilar suture is not consolidated.

C. 490, L. 183, B. 120, Bi. 656, H. 132, Hi. 721, BN. 97, BA. 99, Ai. 1021, Nh. 44, Nw. 23, Ni. 523, Ow. 36, Oh. 34, Oi. 944.

*Presented by Erasmus Wilson, Esq.*, 1879.

1137. The cranium of a mountaineer of Viti Levu, of the Ngalimari tribe, somewhat younger than the last.

From Baron A. von Hügel's collection.

All the permanent teeth are in place, except the posterior molars. The basilar suture is open.

C. 486, L. 175, B. 125, Bi. 714, H. 137, Hi. 783, BN. 99, BA. 94, Ai. 949, Nh. 46, Nw. 22, Ni. 478, Ow. 37, Oh. 34, Oi. 919.

*Presented by Erasmus Wilson, Esq.*, 1879.

1138. The skull of a child of the Ngalimari tribe of mountaineers of Viti Levu.

From Baron A. von Hügel's collection.

The milk-teeth only are in place.

C. 455, L. 169, B. 113, Bi. 669, Nh. 34, Nw. 16, Ni. 471, Ow. 30, Oh. 31, Oi. 1033.

*Presented by Erasmus Wilson, Esq.*, 1879.

1139. The skull of a male Kai Colo, or mountaineer of Fiji, from Voresika, in the Na Drau district, Viti Levu.

From a man killed by a club in a fray with natives of another tribe.

From Baron A. von Hügel's collection.

C. 515, L. 187, B. 128, Bi. 684, H. 145, Hi. 775, BN. 104, BA. 106, Ai. 1019, Nh. 50, Nw. 30, Ni. 600, Ow. 41, Oh. 36, Oi. 878, Ca. 1445.

*Presented by Erasmus Wilson, Esq.*, 1879.

1140. The skull of a male Kai Colo, or mountaineer of Fiji, from Voresika, in the Na Drau district, Viti Levu.

From a man killed by a blow with a club at the same time with the last.

The blow, inflicted just behind the left parietal eminence, has completely detached a nearly circular piece of the inner table of the skull about the size of a shilling.

The four upper incisors have been lost during life.

C. 520, L. 191, B. 128, Bi. 670, H. 141, Hi. 738, BN. 100, Nh. 49, Nw. 27, Ni. 551, Ow. 40, Oh. 33, Oi. 825, Ca. 1500.

*Presented by Erasmus Wilson, Esq.*, 1879.

1141. The cranium of a man, an imbecile from birth, of Navolau, in the Raki-Raki district, coast of Viti Levu.

From Baron A. von Hügel's collection.

The bony palate is defective in the middle line as far forwards as the posterior edge of the second premolar tooth.

C. 486, L. 176, B. 121, Bi. 688, H. 139, Hi. 790, BN. 107, BA. 106, Ai. 991, Nh. 51, Nw. 26, Ni. 510, Ow. 42, Oh. 35, Oi. 833, Ca. 1250.

*Presented by Erasmus Wilson, Esq.*, 1879.

1142. The cranium of a male native of Bau, Viti Levu (Coast tribe).

Killed by Kai Colos, or mountaineers, in 1871. The bony palate is widely defective.

From Baron A. von Hügel's collection.

C. 522, L. 189, B. 137, Bi. 725, H. 141, Hi. 746, BN. 105, BA. 106, Ai. 1010, Nh. 51, Nw. 27, Ni. 529, Ow. 40, Oh. 37, Oi. 925, Ca. 1540.

*Presented by Erasmus Wilson, Esq.*, 1879.

1143. A cranium from Loma Loma, on the island of Vanua-Balavu, one of the Windward or Eastern group of the Fiji Islands : ♂.

The natives of this island have a large infusion of Tongan blood.

From Baron A. von Hügel's collection.

C. 535, L. 192, B. 138, Bi. 719, H. 145, Hi. 755, BN. 108, BA. 106, Ai. 981, Nh. 53, Nw. 26, Ni. 491, Ow. 41, Oh. 35, Oi. 854, Ca. 1600.

*Presented by Erasmus Wilson, Esq.*, 1879.

1144. A cranium from Loma Loma, on the island of Vanua-Balavu : ♂.

From Baron A. von Hügel's collection.

C. 530, L. 191, B. 132, Bi. 691, H. 138, Hi. 723, BN. 110, BA. 110, Ai. 1000, Nh. 53, Nw. 25, Ni. 472, Ow. 41, Oh. 36, Oi. 878.

*Presented by Erasmus Wilson, Esq.*, 1879.

1145. A cranium from Loma Loma, on the island of Vanua-Balavu : ♂.

From Baron A. von Hügel's collection.

C. 514, L. 189, B. 131, Bi. 693, H. 143, Hi. 757, BN. 106, BA. 104, Ai. 981, Nh. 53, Nw. 28, Ni. 528, Ow. 41, Oh. 36, Oi. 878, Ca. 1390.

*Presented by Erasmus Wilson, Esq.*, 1879.

1146. The skull of a child from Ovalau, Fiji Islands.

From Baron A. von Hügel's collection.

The milk-teeth only are in place. The left squamosal meets the frontal.

C. 472, L. 173, B. 119, Bi. 688, H. 124, Hi. 717, BN. 83, BA. 82, Ai. 988, Nh. 33, Nw. 22, Ni. 666, Ow. 35, Oh. 31, Oi. 886.

*Presented by Erasmus Wilson, Esq.*, 1879.

The scaphocephalic cranium, No. 129, is also from Ovalau.

1147. The skull of a male native of the Fiji Islands. O. C. 5388.

From a man who died in the hospital at Hobart Town, Tasmania. Like many of the natives of the coast districts, it presents more of the characteristics of the Polynesian than the Melanesian race. It is figured in Martin's 'Natural History of Quadrupeds, &c.' (1840) p. 310.

C. 503, L. 179, B. 140, Bi. 782, H. 139, Hi. 777, BN. 109, BA. 107, Ai. 982, Nh. 54, Nw. 29, Ni. 537, Ow. 38, Oh. 38, Oi. 1000, Ca. 1425.

*Presented by Dr. Hobson.*

1148. The skull of a male native of Rotuma Island.

From a man who died in the Seamen's Hospital, Greenwich.

C. 517, L. 185, B. 137, Bi. 741, H. 140, Hi. 757, BN. 106, BA. 112, Ai. 1057, Nh. 58, Nw. 25, Ni. 431, Ow. 39, Oh. 37, Oi. 949, Ca. 1350.

*Presented by George Busk, Esq.*, 1875.

## D. New-Hebrides Group.

1149. The cranium of a native of Tanna : ♂.

Obtained in Fiji by Baron A. von Hügel*.

C. 474, L. 167, B. 125, Bi. 749, H. 125, Hi. 749, BN. 92, BA. 99, Ai. 1076, Nh. 49, Nw. 25, Ni. 510, Ow. 40, Oh. 33, Oi. 825, Ca. 1145.

*Presented by Erasmus Wilson, Esq.*, 1879.

1150. A skull of a native of Vati or Sandwich Island, New Hebrides : ♂.

C. 501, L. 178, B. 129, Bi. 725, H. 138, Hi. 775, BN. 100, BA. 106, Ai. 1060, Nh. 51, Nw. 28, Ni. 571, Ow. 39, Oh. 34, Oi. 875, Ca. 1330.

*Purchased from Mr. Hugh Cuming*, 1860.

1151. The skull of a native of Api : ♂.

Obtained in Fiji by Baron A. von Hügel.

C. 478, L. 172, B. 127, Bi. 738, H. 126, Hi. 733, BN. 98, BA. 105, Ai. 1071, Nh. 50, Nw. 28, Ni. 560, Ow. 38, Oh. 34, Oi. 895, Ca. 1160.

*Presented by Erasmus Wilson, Esq.*, 1879.

1152. The skull of a native of Api : ♂?

Obtained in Fiji by Baron A. von Hügel.

The palate is cleft; and the margins of the anterior nasal aperture are peculiarly rounded.

C. 483, L. 169, B. 131, Bi. 775, H. 137, Hi. 811, BN. 96, BA. 95, Ai. 990, Nh. 45, Nw. 21, Ni. 467, Ow. 38, Oh. 32, Oi. 842, Ca. 1375.

*Presented by Erasmus Wilson, Esq.*, 1879.

1153. The skull of a native of Ambrym : ♂.

Obtained in Fiji by Baron A. von Hügel.

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* The New-Hebridean crania collected by Baron von Hügel were those of labourers imported into Fiji, and who died there. The localities from which they came were carefully authenticated.

C. 508, L. 181, B. 127, Bi. 702, H. 136, Hi. 751, BN. 104, BA. 116, Ai. 1115, Nh. 48, Nw. 27, Ni. 563, Ow. 43, Oh. 35, Oi. 814, Ca. 1305.

*Presented by Erasmus Wilson, Esq.*, 1879.

The five following specimens from Mallicollo, with the two from Vanikoro, were collected by the late Commodore Goodenough, R.N., during his last cruise in H.M.S. 'Pearl,' in the year 1875. They were presented by his widow to the donor. With those collected at the same time by Mr. Corrie, they form the subject of a memoir by Mr. Busk published in the 'Journal of the Anthropological Institute,' vol. vi. p. 200.

1154. A cranium from Cook's S.W. Bay, Island of Mallicollo: ♂.

The squamosals join the frontal largely on both sides.

C. 498, L. 177, B. 130, Bi. 734, H. 131, Hi. 740, BN. 96, BA. 99, Ai. 1031, Nh. 48, Nw. 25, Ni. 521, Ow. 39, Oh. 34, Oi. 872, Ca. 1400.

*Presented by Major-General A. Lane Fox*, 1876.

1155. A cranium from Cook's S.W. Bay, Mallicollo.

C. 513, L. 188, B. 127, Bi. 676, H. 138, Hi. 734, BN. 102, BA. 102, Ai. 1000, Nh. 52, Nw. 28, Ni. 535, Ow. 38, Oh. 38, Oi. 1000, Ca. 1410.

*Presented by Major-General A. Lane Fox*, 1876.

1156. A mutilated cranium from Cook's S.W. Bay, Mallicollo: ♀.

The calvarial sutures are nearly all obliterated; yet traces of the frontal suture are to be seen.

C. 475, L. 170, B. 122, Bi. 718, H. 126, Hi. 741, BN. 93, Nh. 47, Nw. 26, Ni. 553, Ow. 38, Oh. 33, Oi. 868.

*Presented by Major-General A. Lane Fox*, 1876.

1157. A cranium from Port Sandwich, Mallicollo: ♂.

The squamosals join the frontal on both sides.

C. 500, L. 181, B. 130, Bi. 718, H. 135, Hi. 746, BN. 98, BA. 108, Ai. 1102, Nh. 50, Nw. 28, Ni. 560, Ow. 40, Oh. 34, Oi. 850, Ca. 1300.

*Presented by Major-General A. Lane Fox*, 1876.

1158. A cranium from Port Sandwich, Mallicollo : ♂?

It is metopic. The squamosal joins the frontal on the right side.

C. 490, L. 176, B. 128, Bi. 727, H. 129, Hi. 733, BN. 92, BA. 95, Ai. 1033, Nh. 43, Nw. 24, Ni. 558, Ow. 37, Oh. 33, Oi. 892, Ca. 1225.

*Presented by Major-General A. Lane Fox*, 1876.

The three following specimens were collected by the donor in 1875, while Assistant Surgeon to H.M.S. 'Pearl.'

1159. A cranium from the island of Mallicollo : ♀?

The squamosals join the frontal largely on both sides.

C. 492, L. 176, B. 122, Bi. 693, H. 127, Hi. 722, BN. 91, BA. 98, Ai. 1077, Nh. 47, Nw. 26, Ni. 553, Ow. 39, Oh. 34, Oi. 872, Ca. 1250.

*Presented by Alfred Corrie, Esq., R.N.*, 1875.

1160. A cranium from the island of Mallicollo : ♂.

The squamosals join the frontal largely on both sides.

C. 500, L. 180, B. 125, Bi. 694, H. 131, Hi. 728, BN. 91, BA. 96, Ai. 1055, Nh. 49, Nw. 26, Ni. 531, Ow. 38, Oh. 36, Oi. 947, Ca. 1275.

*Presented by Alfred Corrie, Esq., R.N.*, 1875.

1161. A cranium from the island of Mallicollo : ♀?

The squamosals join the frontal on both sides. The frontal suture is open, though both sagittal and coronal sutures are partially obliterated, and the skull shows signs of advanced age. It is probably to this cause that the great general depression of the cranium and widening of the temporal region is due, giving height and breadth indices quite unlike those of Melanesian skulls generally. As the normal form has evidently been altered by senile change, this cranium is excluded from the average measurements.

C. 490, L. 173, B. 132, Bi. 763, H. 118, Hi. 682, BN. 92, Nh. 49, Nw. 25, Ni. 510, Ow. 39, Oh. 36, Oi. 923, Ca. 1200.

*Presented by Alfred Corrie, Esq., R.N.*, 1875.

N.B. The Mallicollo crania are all remarkable for the depression of the frontal region ; but it has not yet been ascertained whether this is a natural conformation, or due to artificial compression in infancy.

1162. The skull of a native of the Banks Islands : ♂.

Obtained in Fiji by Baron A. von Hügel.

C. 498, L. 176, B. 129, Bi. 733, H. 129, Hi. 733, BN. 98, BA. 100, Ai. 1020, Nh. 54, Nw. 27, Ni. 500, Ow. 41, Oh. 34, Oi. 756, Ca. 1230.

*Presented by Erasmus Wilson, Esq.*, 1879.

1163. The skull of a native of the Banks Islands : ♂.

Obtained in Fiji by Baron A. von Hügel.

C. 483, L. 165, B. 132, Bi. 800, H. 130, Hi. 788, BN. 94, BA. 99, Ai. 1053, Nh. 53, Nw. 27, Ni. 509, Ow. 41, Oh. 35, Oi. 854, Ca. 1320.

*Presented by Erasmus Wilson, Esq.*, 1879.

1164. The skull of a native of Cherry Island : ♂.

Obtained in Fiji by Baron A. von Hügel.

The right upper canine is almost completely embedded in the maxilla, the apex of the crown pointing upwards and outwards just below the infraorbital foramen, with its lingual surface forwards. There are but three lower incisors, the central one being placed close to the middle line; the missing one appears to be the right lateral.

C. 500, L. 175, B. 136, Bi. 777, H. 152, Hi. 869, BN. 105, BA. 98, Ai. 933, Nh. 48, Nw. 25, Ni. 521, Ow. 40, Oh. 32, Oi. 800, Ca. 1500.

*Presented by Erasmus Wilson, Esq.*, 1879.

1165. A skull from Direction Island, Vanikoro : ♂.

Obtained by Commodore Goodenough, R.N., in 1875.

C. 502, L. 180, B. 127, Bi. 706, H. 136, Hi. 756, BN. 100, BA. 111, Ai. 1110, Nh. 46, Nw. 24, Ni. 522, Ow. 39, Oh. 30, Oi. 769, Ca. 1350.

*Presented by Major-General A. Lane Fox*, 1876.

1166. A skull from Direction Island, Vanikoro : ♂.

Obtained by Commodore Goodenough, R.N., in 1875.

C. 483, L. 175, B. 125, Bi. 714, H. 140, Hi. 800, BN. 98, BA. 100, Ai. 1020, Nh. 46, Nw. 27, Ni. 587, Ow. 37, Oh. 32, Oi. 865, Ca. 1310.

*Presented by Major-General A. Lane Fox*, 1876.

1167. A skull said to have been brought from one of the islands of the New Hebrides: ♂.

This skull of a powerful man presents in an exaggerated degree the characters of the "hypsi-stenocephalic" Melanesian cranium, and its dimensions closely correspond to those of an inhabitant of Vati (or Fate) described in Dr. Barnard Davis's 'Thesaurus.' p. 311. no. 817.

C. 533, L. 199, B. 128, Bi. 643, H. 142, Hi. 719, BN. 108, BA. 115, Ai. 1065, Nh. 52, Nw. 29, Ni. 558, Ow. 43, Oh. 32, Oi. 744, Ca. 1475.

*Purchased*, 1876.

1168. A cranium of unknown locality, formerly assigned to New Zealand, but more probably from the New Hebrides: ♀.

In its general characters, allowing for the very well-marked sexual differences, it resembles the last. This cranium has been described and figured by Professor Huxley in a memoir "On two widely-contrasted forms of the Human Cranium," 'Journal of Anatomy,' vol. i. p. 60 (1867). It has the lowest index of breadth of any normal cranium in the collection, except one of the Fiji mountaineers, No. 1126.

C. 510, L. 190, B. 120, Bi. 632, H. 135, Hi. 711, BN. 101, BA. 106, Ai. 1050, Nh. 49, Nw. 27, Ni. 551, Ow. 39, Oh. 34, Oi. 872, Ca. 1225.

*Presented by Professor Huxley*, 1876.

## E. Solomon Islands.

1169. The skull of a native of Ysabel: ♂.

Obtained in Fiji by Baron A. von Hügel.

C. 505, L. 180, B. 135, Bi. 750, H. 136, Hi. 756, BN. 100, BA. 104, Ai. 1040, Nh. 53, Nw. 24, Ni. 453, Ow. 42, Oh. 35, Oi. 833, Ca. 1450.

*Presented by Erasmus Wilson, Esq.*, 1879.

1170. The skull of a native of one of the Solomon Islands: ♂.

Obtained in Fiji by Baron A. von Hügel.

C. 503, L. 182, B. 132, Bi. 725, H. 139, Hi. 764, BN. 101, BA. 96, Ai. 950, Nh. 50, Nw. 23, Ni. 460, Ow. 36, Oh. 32, Oi. 889, Ca. 1300.

*Presented by Erasmus Wilson, Esq.*, 1879.

1171. An artificially prepared head from Rubiana, a small island near New Georgia (Solomon Islands).

The face is ornamented with inlaid pieces of mother-of-pearl. Wooden teeth are fixed in the mouth in front of the real ones. Some of the hair remains at the back of the head in distinct spirally-twisted tufts.

The following measurements are approximative only:—C. 510, L. 181, B. 133, Bi. 735, Ca. 1300.

*Presented by Dr. George Bennett,* 1859.

1172. A similarly prepared skull from the same locality.

The face is inlaid in the same manner with pieces of mother-of-pearl, but in a different pattern.

Approximative measurements:—C. 515, L. 183, B. 140, Bi. 765, Ca. 1370.

*Presented by Dr. George Bennett,* 1859.

## F. Papua or New Guinea.

The following thirteen crania from the east part of New Guinea and the adjacent islands, were collected in 1874 by the donor during the cruise of H.M.S. 'Basilisk' (Captain J. Moresby, R.N.), and described in the 'Journal of the Anthropological Institute,' vol. vi. p. 102 (1876)*. Although the majority of them present the usual characteristics of the Melanesian race, some (as Nos. 1174, 1178, and 1185) evidently belong to different types—a circumstance which quite accords with evidence from other sources, indicating a considerable mixture of races among the inhabitants of this region of the world. The localities given are those in which they were obtained; but as the natives are great (and perhaps rather indiscriminate) head-collectors, they afford no proof of the original home of the person to which the skull belonged.

* Two other crania of the same collection, and described in the paper above referred to, are now in the Anatomical Museum of the University of Edinburgh.

1173. A skull from near South-east Cape, New Guinea : ♂?

C. 473, L. 172, B. 122, Bi. 709, H. 129, Hi. 750, BN. 93, BA. 97, Ai. 1043, Nh. 44, Nw. 24, Ni. 545, Ow. 38, Oh. 31, Oi. 816, Ca. 1150.

*Presented by Dr. Peter Comrie, Staff-Surgeon R.N.*, 1877.

1174. A cranium from Traitor's Bay, near Riche Island, New Guinea : ♂.

The occipital region is injured, so that some of the measurements cannot be taken.

C. 474, L. 163, B. 132, Bi. 810, Nh. 47, Nw. 25, Ni. 532, Ow. 38, Oh. 33, Oi. 868, Ca. 1090.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1175. A cranium from China Strait : ♂.

C. 503, L. 181, B. 128, Bi. 707, H. 127, Hi. 702, Nh. 50, Nw. 26, Ni. 520, Ow. 37, Oh. 30, Oi. 811, Ca. 1250.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1176. A cranium from Skelton Island : ♂.

C. 490, L. 173, B. 130, Bi. 751, H. 130, Hi. 751, BN. 96, BA. 96, Ai. 1000, Nh. 55, Nw. 25, Ni. 455, Ow. 40, Oh. 35, Oi. 875, Ca. 1340.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1177. A cranium from Teste Island, south of Moresby Island : ♂.

C. 500, L. 182, B. 127, Bi. 698, H. 133, Hi. 731, BN. 97, BA. 98, Ai. 1010, Nh. 44, Nw. 25, Ni. 568, Ow. 37, Oh. 30, Oi. 811, Ca. 1390.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1178. A cranium from Lydia Island, near East Cape, New Guinea : ♂.

Found suspended to the figure-head of a canoe, March 4th, 1874.

Most of the teeth have been lost during life ; but obliteration of the sutures has only commenced at the pterion and lambda.

C. 480, L. 166, B. 137, Bi. 825, H. 127, Hi. 765, Nh. 47, Nw. 25, Ni. 532, Ow. 38, Oh. 31, Oi. 816, Ca. 1240.

*Presented by Dr. P. Comrie, R.N.*, 1877

1179. A cranium from Lydia Island: ♂.

There is no trace of a sagittal suture, though the basilar suture has but recently united, and the teeth are unworn. This is evidently a premature synostosis, and may have affected the form of the head.

C. 515, L. 188, B. 132, Bi. 702, H. 135, Hi. 718, BN. 107, BA. 107, Ai. 1000, Nh. 50, Nw. 26, Ni. 520, Ow. 37, Oh. 32, Oi. 865, Ca. 1380.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1180. A cranium from Lydia Island: ♂.

C. 493, L. 176, B. 127, Bi. 722, H. 130, Hi. 739, BN. 96, BA. 100, Ai. 1042, Nh. 48, Nw. 24, Ni. 500, Ow. 37, Oh. 30, Oi. 811, Ca. 1290.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1181. A cranium from Lydia Island: ♀.

C. 482, L. 176, B. 123, Bi. 699, H. 134, Hi. 761, BN. 97, BA. 102, Ai. 1052, Nh. 49, Nw. 26, Ni. 531, Ow. 37, Oh. 30, Oi. 811, Ca. 1300.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1182. A cranium from Lydia Island: ♀.

C. 468, L. 176, B. 117, Bi. 665, H. 127, Hi. 722, BN. 101, BA. 105, Ai. 1040, Nh. 46, Nw. 25, Ni. 543, Ow. 37, Oh. 28, Oi. 757, Ca. 1080.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1183. A cranium from Moresby Island: ♀.

C. 466, L. 168, B. 122, Bi. 726, H. 129, Hi. 768, BN. 92, BA. 95, Ai. 1033, Nh. 47, Nw. 26, Ni. 553, Ow. 36, Oh. 31, Oi. 861, Ca. 1175.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1184. A cranium from Tub Bay, D'Entrecasteaux Islands : ♀.

The right squamosal joins the frontal.

C. 483, L. 176, B. 125, Bi. 710, H. 126, Hi. 716, BN. 97, BA. 101, Ai. 1041, Nh. 50, Nw. 24, Ni. 480, Ow. 39, Oh. 32, Oi. 820, Ca. 1190.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1185. A cranium from the D'Entrecasteaux Islands : ♀.

An articular surface for the odontoid process is developed on the basion.

C. 507, L. 178, B. 137, Bi. 770, H. 137, Hi. 770, BN. 97, BA. 101, Ai. 1041, Nh. 51, Nw. 25, Ni. 490, Ow. 37, Oh. 34, Oi. 919, Ca. 1450.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1186. A mandible from the same collection, not belonging to either of the crania.

*Presented by Dr. P. Comrie, R.N.*, 1877.

1187. The cranium, with the right half of the face broken away, from Wyer, an island at the eastern extremity of Torres Strait. O. C. 5348.

This and the other specimens from Torres Strait, presented by Mr. Jukes, were collected on the surveying voyage of H.M.S. 'Fly' (Captain Blackwood), during the years 1842–1846.

C. 496, L. 175, B. 134, Bi. 766, H. 134, Hi. 766, BN. 96, Ow. 40, Oh. 33, Oi. 825, Ca. 1365.

*Presented by J. Bete Jukes, Esq.*, 1846.

1188. The articulated skeleton of a male inhabitant of Erroob, or Darnley Island, in Torres Strait.

Prepared from a dried mummy obtained in Erroob, in 1872, by Mr. Charles Lemaistre, Master of the French brig 'Victorine.' A description and figure of the mummy, with observations upon its mode of preservation, are given in the 'Journal of the Anthropological Institute,' vol. viii. (1879); and a photograph, taken as it was received, extended upon a wooden framework of native manufacture, is placed with the skeleton.

The skull has some appearance of having been artificially flattened.

Height of skeleton 5 feet 3·9 inches = 1623.

Clavicle, *r.* 150, *l.* 150; humerus, *r.* 324, *l.* 327; radius, *r.* 263, *l.* 260; femur, *r.* 466, *l.* 473; tibia, *r.* 387, *l.* 387.

Cranium: C. 505, L. 175, B. 132, Bi. 754, H. 136, Hi. 777, BN. 108, BA. 110, Ai. 1019, Nh. 54, Nw. 27, Ni. 500, Ow. 41, Oh. 34, Oi. 829, Ca. 1280.

*Purchased*, 1879.

1189. The artificially prepared head of a Papuan, from Erroob, or Darnley Island: ♂. O. C. 5351.

The dried integuments of the face have been painted red, and artificial eyes of mother-of-pearl inserted in the orbits, as was the case in the last specimen.

C. 510, L. 183, B. 137, Bi. 749, H. 135, Hi. 738, Ca. 1280.

*Presented by Lieut. Ince, R.N.*, 1846.

1190. The skull of a Papuan, from Erroob, or Darnley Island, which has been prepared in a similar manner: ♂.

Obtained by Prof. Huxley, while Assistant Surgeon to H.M.S. 'Rattlesnake,' during Captain Owen Stanley's survey of Torres Straits (1847–50).

C. 500, L. 182, B. 129, Bi. 709, H. 130, Hi. 714, BN. 105, BA. 111, Ai. 1057, Nh. 50, Nw. 25, Ni. 500, Ow. 40, Oh. 33, Oi. 825, Ca. 1225.

*Presented by George Busk, Esq.*, 1864.

1191. The skull of a Papuan, from Erroob, or Darnley Island, Torres Strait: ♂. O. C. 5349.

C. 533, L. 196, B. 136, Bi. 694, H. 138, Hi. 704, BN. 104, BA. 112, Ai. 1077, Nh. 50, Nw. 26, Ni. 520, Ow. 42, Oh. 32, Oi. 762, Ca. 1510.

*Presented by J. Bete Jukes, Esq.*, 1846.

1192. The skull of a young Papuan, from Erroob, or Darnley Island. O. C. 5350.

The basilar suture is not closed; and the posterior molars are not in place, though all the other permanent teeth have been cut.

C. 470, L. 167, B. 129, Bi. 772, H. 125, Hi. 749, BN. 93, BA. 95, Ai. 1022, Nh. 45, Nw. 23, Ni. 511, Ow. 33, Oh. 32, Oi. 970, Ca. 1220.

*Presented by J. Bete Jukes, Esq.*, 1846.

1193. The cranium of a Papuan, from one of the islands in Torres Strait: ♂. O. C. 5347.

The left squamosal sends out a *processus frontalis*, which, however, does not quite meet the frontal bone.

C. 498, L. 174, B. 138, Bi. 793, H. 140, Hi. 805, BN. 102, BA. 110, Ai. 1078, Nh. 52, Nw. 25, Ni. 482, Ow. 42, Oh. 35, Oi. 833, Ca. 1260.

*Presented by J. Bete Jukes, Esq.*, 1846.

1194. The cranium of a Papuan, from one of the islands in Torres Strait: ♂. O. C. 5346.

The sagittal suture is obliterated in the region of the obelion, where there is a large irregular depression.

C. 510, L. 185, B. 129, Bi. 697, H. 135, Hi. 730, BN. 99, BA. 103, Ai. 1040, Nh. 51, Nw. 30, Ni. 588, Ow. 43, Oh. 38, Oi. 884, Ca. 1300.

*Presented by J. Bete Jukes, Esq.*, 1846.

1195. The cranium of a Kowrarega, or inhabitant of Prince-of-Wales's Island, Torres Strait: ♂.

Described by the donor as "a mixed race, Papuan and Australian"*.

C. 502, L. 185, B. 128, Bi. 692, H. 137, Hi. 741, BN. 99, BA. 102, Ai. 1030, Nh. 47, Nw. 29, Ni. 617, Ow. 43, Oh. 35, Oi. 814, Ca. 1260.

*Presented by Lieut. R. H. Armit, R.N.*, 1870.

* "The Kowraregas inhabit the Prince-of-Wales group. I believe them to be a Papuanized colony of Australians; in fact one might hesitate whether to consider them as Papuans or Australians, so complete is the fusion of the two races. Still the natives of the Prince-of-Wales Islands rank themselves with the islanders, and exhibit a degree of conscious superiority over their neighbours on the mainland, and with some show of reason; although themselves inferior to all the other islanders, they have at least made with them the great advance in civilization of having learned to cultivate the ground—a process which is practised by none of the Australian aborigines."—MacGillivray, *Narrative of the Voyage of H.M.S. 'Rattlesnake,'* 1852.

1196. The cranium of an inhabitant of Wallis Island, Endeavour Strait: ♀. O. C. 5352.

C. 483, L. 174, B. 127, Bi. 730, H. 122, Hi. 701, BN. 93, BA. 104, Ai. 1118, Nh. 46, Nw. 26, Ni. 565, Ow. 40, Oh. 32, Oi. 800, Ca. 1100.

*Presented by J. Bete Jukes, Esq.*, 1846.

1197. An artificially prepared and ornamented head from the south coast of New Guinea. Probably ♀. O. C. 5355.

From a young individual: the basilar suture is not united; nor are the last molar teeth come into place in either jaw. The other permanent teeth are all present.

Discovered May 30, 1845, with a large number of others similarly prepared, by an exploring party from H.M.S. 'Fly' (Captain Blackwood, R.N.), in a large native house on the banks of Aird's River, Gulf of Papua, suspended by the quasi-beard from a frame under the middle of the roof. See Jukes's 'Narrative of the Surveying Voyage of H.M.S. Fly' (1847), vol. i. p. 274.

C. 450, L. 160, B. 129, Bi. 806, H. 128, Hi. 800, Ca. 1100.

*Presented by Captain Philip Blackwood, R.N.*, 1846.

1198. A similarly prepared head of an adult: ♂. O. C. 5356.

Obtained with the last. The squamosals join the frontal on both sides.

C. 482, L. 168, B. 136, Bi. 810, H. 137, Hi. 815, Ca. 1320.

*Presented by Captain Philip Blackwood, R.N.*, 1846.

1199. The cranium of a young Papuan. O. C. 5354.

The basilar suture is not united; and the last molars are not in place.

C. 450, L. 164, B. 117, Bi. 713, H. 127, Hi. 774, BN. 87, BA. 86, Ai. 989, Nh. 39, Nw. 21, Ni. 538, Ow. 34, Oh. 32, Oi. 727, Ca. 1100.

*Presented by J. Bete Jukes, Esq.*, 1846.

1200. The cranium of a Papuan: ♂. O. C. 5353.

C. 512, L. 187, B. 127, Bi. 679, H. 139, Hi. 743, BN. 98, BA. 102, Ai. 1041, Nh. 47, Nw. 26, Ni. 553, Ow. 40, Oh. 34, Oi. 850, Ca. 1435.

1201. A cast of the cranium of a brachycephalic Papuan, from the Island of Rawak, near Waigioe, at the north-west extremity of New Guinea.

The original is in the Muséum d'Histoire Naturelle at Paris, and is figured in the 'Zoologie du Voyage de Freycinet' (l'Uranie), by Quoy and Gaimard, plate 1.

C. 538, L. 178, B. 159, Bi. 893, H. 144, Hi. 809.

*Presented by the Professor-Administrators of the Paris Museum of Natural History, per M. de Quatrefages*, 1875.

## G. The Andaman Islands.

The following specimens of skeletons and skulls of the natives of the Andaman Islands are all from the vicinity of Port Blair, in South Andaman. A fuller description, in which they are compared with additional specimens of the same race from other collections, will be found in a memoir "On the Osteology and Affinities of the Natives of the Andaman Islands," read before the Anthropological Institute of Great Britain and Ireland, at the meeting of June 24, 1879, and published in the Journal of the Institute.

1202. The cranium of a male native of the Andaman Islands.

It is preserved in the condition in which it was obtained from the widow, who wore it suspended round her neck by a netted band, as is the custom among the Andaman Islanders. It has been stained with red ochre, adorned with tassels composed of threaded pieces of the shell of *Dentalium*, and contains within the cavity several valves of *Novaculina olivacea*.

The teeth have all been removed, except a left upper canine, which is permanently buried in the alveolus.

Obtained in the Andamans by Captain Montagu Prothero.

C. 475, L. 165, B. 137, Bi. 830, H. 134, Hi. 812, BN. 92, BA. 89, Ai. 967, Nh. 46, Nw. 24, Ni. 522, Ow. 36, Oh. 33, Oi. 917, Ca. 1260.

*Presented by Dr. Prothero Smith*, 1877.

1203. The articulated skeleton of a female native of the Andaman Islands.

Height of skeleton 4 feet 4 inches = 1320.

Clavicle, *r.* 107, *l.* 107; humerus, *r.* 249, *l.* 247; radius, *r.* 201, *l.* 200; femur, *r.* 367, *l.* 370; tibia, *r.* 294, *l.* 291.

Cranium: C. 455, L. 152, B. 132, Bi. 868, H. 125, Hi. 822, BN. 87, BA. 88, Ai. 1011, Nh. 43, Nw. 22, Ni. 512, Ow. 35, Oh. 32, Oi. 914, Ca. 1080.

*Received in exchange from the Calcutta Museum, per Dr. J. Anderson,* 1878.

1204. The skull of a female native of the Andaman Islands.

From a woman said to have been eighteen years of age. The basilar suture has united, though not very firmly; and the third molars are rising into place.

C. 465, L. 165, B. 131, Bi. 794, H. 126, Hi. 764, BN. 90, BA. 93, Ai. 1033, Nh. 43, Nw. 21, Ni. 488, Ow. 35, Oh. 33, Oi. 943, Ca. 1125.

*Presented by Surgeon-Major Francis Day,* 1870.

1205. The skull of a male native of the Andaman Islands.

It is that of a man named "Bîbi tôl," who lived at Brigade Creek, and was supposed to be about twenty-five years of age when he died.

C. 483, L. 166, B. 139, Bi. 837, H. 124, Hi. 747, BN. 93, BA. 93, Ai. 1000, Nh. 47, Nw. 24, Ni. 511, Ow. 36, Oh. 34, Oi. 944, Ca. 1280.

*Presented by Dr. Alfred J. Wall and Sir Joseph Fayrer, M.D., K.C.S.I.,* 1877.

1206. The skeleton of a male native of the Andaman Islands.

Six cervical and two dorsal vertebræ, with most of the bones of the hands and feet, are missing.

Clavicle, *r.* 109, *l.* 109; humerus, *r.* 281, *l.* 278; radius, *r.* 202, *l.* 206; femur, *r.* 382, *l.* 382; tibia, *r.* 311, *l.* 310.

Cranium: C. 482, L. 171, B. 133, Bi. 778, H. 133, Hi. 778, BN. 92, BA. 92, Ai. 1000, Nh. 40, Nw. 21, Ni. 525, Ow. 36, Oh. 31, Oi. 861, Ca. 1195.

*Presented by Surgeon-Major Joseph Dougall, M.D., Senior Medical Officer, Andaman Islands,* 1878 *.

* This and the following specimens were presented by the late Dr. Dougall, at the request of Sir Joseph Fayrer, M.D., K.C.S.I., President of the Indian Medical Board.

1207. The skeleton of a male native of the Andaman Islands.

From a man who died in March 1876 from the effects of a blow on the occiput inflicted by a runaway convict.

The sternum, two ribs, a patella, and most of the bones of the hands and feet are missing.

Clavicle, *r.* 123, *l.* 121; humerus, *l.* 266; radius, *r.* 232, *l.* 232; femur, *r.* 393, *l.* 394; tibia, *r.* 337, *l.* 333.

Cranium: C. 490, L. 168*, B. 138, Bi. 821, H. 132, Hi. 786, BN. 96, BA. 98, Ai. 1021, Nh. 46, Nw. 24, Ni. 522, Ow. 35, Oh. 32, Oi. 914, Ca. 1330.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1208. The skeleton of a male native of the Andaman Islands, wanting the skull.

The right clavicle, the atlas and axis, two ribs, and many of the bones of the hands and feet are also missing.

Clavicle, *l.* 107; humerus, *r.* 276; radius, *r.* 226; femur, *r.* 410; tibia, *r.* 330, *l.* 329.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1209. The skeleton of a male native of the Andaman Islands, wanting the skull.

The right radius, three of the ribs, the patellæ, and bones of the hands and feet are also wanting.

Clavicle, *r.* 114, *l.* 112; humerus, *r.* 267, *l.* 264; radius, *l.* 213; femur, *r.* 378, *l.* 384; tibia, *r.* 302, *l.* 304.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1210. The skeleton of a male native of the Andaman Islands, wanting the skull.

Four ribs, one patella, and many of the bones of the hands are also missing.

Clavicle, *r.* 124, *l.* 116; humerus, *r.* 294, *l.* 293; radius, *r.* 243, *l.* 238; femur, *r.* 397, *l.* 400; tibia, *r.* 335, *l.* 334.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1211. The cranium of a native of the Andaman Islands: ♂.

C. 492, L. 171, B. 135, Bi. 789, H. 130, Hi. 760, BN. 95, BA. 102, Ai. 1074, Nh. 49, Nw. 25, Ni. 510, Ow. 36, Oh. 34, Oi. 944, Ca. 1360.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

* Approximately, owing to injury to occipital region.

1212. The skeleton of a female native of the Andaman Islands.

Many of the ribs and most of the bones of the hands and feet are missing.

Clavicle, *r.* 110, *l.* 107; humerus, *r.* 279, *l.* 275; radius, *r.* 217, *l.* 211; femur, *r.* 390, *l.* 393; tibia, *r.* 318, *l.* 318.

Cranium: C. 468, L. 161, B. 136, Bi. 845, H. 122, Hi. 758, BN. 88, BA. 86, Ai. 977, Nh. 42, Nw. 22, Ni. 524, Ow. 36, Oh. 32, Oi. 889, Ca. 1180.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1213. The skeleton of a female native of the Andaman Islands.

Four of the vertebræ, the left scapula, the right radius, and most of the bones of the hands and feet are missing.

Clavicle, *r.* 97; humerus, *r.* 248, *l.* 245; radius, *l.* 200; femur, *r.* 359, *l.* 360; tibia, *r.* 295, *l.* 298.

Cranium: C. 455, L. 159, B. 131, Bi. 824, H. 126, Hi. 792, BN. 91, BA. 92, Ai. 1011, Nh. 43, Nw. 21, Ni. 488, Ow. 34, Oh. 32, Oi. 941, Ca. 1110.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1214. The skeleton of a female native of the Andaman Islands.

Complete, with the exception of a few small bones of the hands and feet.

Clavicle, *r.* 102, *l.* 103; humerus, *r.* 262, *l.* 255; radius, *r.* 211, *l.* 208; femur, *r.* 384, *l.* 380; tibia, *r.* 315, *l.* 316.

Cranium: C. 456, L. 156, B. 132, Bi. 846, H. 125, Hi. 801, BN. 88, BA. 95, Ai. 1080, Nh. 43, Nw. 23, Ni. 535, Ow. 35, Oh. 30, Oi. 857, Ca. 1025.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1215. The skeleton of a female native of the Andaman Islands.

The left humerus, the sacrum, eight of the vertebræ, seven ribs, and the bones of the hands and feet are missing.

Clavicle, *r.* 114, *l.* 114; humerus, *r.* 256; radius, *r.* 214, *l.* 210; femur, *r.* 380, *l.* 381; tibia, *r.* 308, *l.* 306.

Cranium: C. 454, L. 157, B. 131, Bi. 824, H. 120, Hi. 764, BN. 86, BA. 92, Ai. 1070, Nh. 42, Nw. 21, Ni. 500, Ow. 34, Oh. 32, Oi. 941, Ca. 1100.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1216. The skeleton of a female native of the Andaman Islands.

The atlas and axis, right clavicle, one rib, the manubrium sterni, and most of the bones of the hands and feet are wanting.

Clavicle, *l.* 97; humerus, *r.* 244, *l.* 242; radius, *r.* 198, *l.* 197; femur, *r.* 358, *l.* 358; tibia, *r.* 294, *l.* 295.

Cranium: C. 462, L. 160, B. 135, Bi. 844, H. 126, Hi. 788, BN. 90, BA. 88, Ai. 978, Nh. 42, Nw. 22, Ni. 524, Ow. 35, Oh. 32, Oi. 914, Ca. 1110.

*Presented by Surgeon-Major J. Dougall, M.D.*, 1878.

1217. The skeleton of a male native of the Andaman Islands.

Many of the bones are affected by syphilitic necrosis.

Humerus, *r.* 281; radius, *r.* 234; femur, *l.* 410; tibia, *l.* 326.

Cranium: C. 470, L. 166, B. 130, Bi. 783, H. 128, Hi. 771, BN. 97, BA. 97, Ai. 1000, Nh. 47, Nw. 21, Ni. 447, Ow. 36, Oh. 33, Oi. 917, Ca. 1170.

*Presented by Major-General H. Man* *, 1879.

1218. The skeleton of a female native of the Andaman Islands.

Clavicle, *r.* 112, *l.* 116; humerus, *r.* 279, *l.* 274; radius, *r.* 217, *l.* 213; femur, *r.* 393, *l.* 391; tibia, *r.* 324, *l.* 322.

Cranium: C. 474, L. 165, B. 134, Bi. 815, H. 124, Hi. 756, BN. 92, BA. 97, Ai. 1054, Nh. 45, Nw. 23, Ni. 511, Ow. 35, Oh. 33, Oi. 943, Ca. 1210.

*Presented by Major-General H. Man*, 1879.

* Presented at the request of J. R. Mummery, Esq.

## 8. *AFRICA SOUTH OF THE SAHARA**.

### A. African Negroes of unknown Locality.

1219. The articulated skeleton of a male African Negro. O. C. 5372.

Height 5 feet 1·7 inches=1567.

Clavicle, *r.* 153, *l.* 153; humerus, *r.* 312, *l.* 308; radius, *r.* 237, *l.* 237; femur, *r.* 425, *l.* 428; tibia, *r.* 358, *l.* 358.

Cranium: C. 512, L. 184, B. 135, Bi. 734, H. 138, Hi. 750, BN. 100, Nh. 47, Nw. 30, Ni. 638, Ow. 40, Oh. 36, Oi. 900, Ca. 1290.

*Purchased from Mr. George Evans*, 1840.

1220. The cranium of an African Negro: ♂. O. C. 5362.

There is a large right epipteric or, rather, suprasquamous bone.

C. 493, L. 175, B. 136, Bi. 777, H. 135, Hi. 771, BN. 100, BA. 104, Ai. 1040, Nh. 47, Nw. 26, Ni. 553, Ow. 39, Oh. 33, Oi. 846, Ca. 1350.

*Hunterian.*

1221. The skull of an African Negro: ♂. O. C. 5379.

C. 515, L. 187, B. 134, Bi. 717, H. 128, Hi. 684, BN. 97, BA. 102, Ai. 1052, Nh. 52, Nw. 27, Ni. 519, Ow. 37, Oh. 34, Oi. 919, Ca. 1370.

*Hunterian.*

1222. The cranium of an African Negro: ♂. O. C. 5381.

There is a broad lozenge-shaped epactal bone in the supra-occipital.

C. 500, L. 178, B. 130, Bi. 730, H. 135, Hi. 758, BN. 98, BA. 99, Ai. 1010, Nh. 47, Nw. 26, Ni. 553, Ow. 38, Oh. 31, Oi. 816, Ca. 1310.

*Hunterian.*

1223. The cranium of an African Negro: ♀. O. C. 5385 & 5757.

C. 495, L. 177, B. 134, Bi. 757, H. 130, Hi. 734, BN. 94, BA. 99, Ai. 1053, Nh. 40, Nw. 26, Ni. 650, Ow. 38, Oh. 33, Oi. 868, Ca. 1280.

*Hunterian.*

* The region mainly inhabited by frizzly-haired races, and nearly corresponding with the Ethiopian Region of zoologists.

1224. The skull of a young African Negro. O. C. 5380.

The basilar suture is open. All the permanent teeth have been acquired, except the last molars.

C. 478, L. 172, B. 128, Bi. 744, H. 128, Hi. 744, BN. 95, BA. 98, Ai. 1032, Nh. 46, Nw. 23, Ni. 500, Ow. 38, Oh. 33, Oi. 868.

*Hunterian.*

1225. The cranium of a young African Negro: ♀. O. C. 5382.

The basilar suture is open, but all the permanent teeth have been acquired.

C. 477, L. 173, B. 124, Bi. 717, H. 127, Hi. 734, BN. 95, BA. 102, Ai. 1074, Nh. 43, Nw. 24, Ni. 558, Ow. 38, Oh. 30, Oi. 789.

*Purchased.*

1226. The cranium of an African Negro: ♂. O. C. 5384 & 5756.

C. 534, L. 195, B. 138, Bi. 708, H. 137, Hi. 703, BN. 105, BA. 106, Ai. 1010, Nh. 47, Nw. 29, Ni. 617, Ow. 40, Oh. 34, Oi. 850, Ca. 1550.

*Purchased.*

1227. The skull of an African Negro: ♂. O. C. 5363.

There is a large epactal bone in the supraoccipital.

C. 517, L. 186, B. 140, Bi. 753, H. 135, Hi. 726, BN. 99, BA. 106, Ai. 1071, Nh. 51, Nw. 24, Ni. 471, Ow. 40, Oh. 37, Oi. 925, Ca. 1325.

*Presented by Henry Cline, Esq.*

1228. The cranium of an African Negro: ♂. O. C. 5376.

It is remarkable for the shortness of the face, breadth of the nasal aperture, lowness of the orbits, and extreme prognathism.

C. 522, L. 188, B. 138, Bi. 734, H. 128, Hi. 688, BN. 101, BA. 116, Ai. 1148, Nh. 39, Nw. 28, Ni. 718, Ow. 39, Oh. 29, Oi. 744, Ca. 1360.

*Purchased.*

1229. The cranium of an African Negro: ♂. O. C. 5377.

C. 528, L. 190, B. 143, Bi. 753, H. 142, Hi. 747, BN. 113, BA. 118, Ai. 1044, Nh. 45, Nw. 28, Ni. 622, Ow. 45, Oh. 34, Oi. 756, Ca. 1420.

*Presented by Sir William Blizard.*

1230. The cranium of an African Negro : ♀. O. C. 5374.

C. 490, L. 178, B. 124, Bi. 697, H. 139, Hi. 781, BN. 99, BA. 98, Ai. 990, Nh. 45, Nw. 25, Ni. 555, Ow. 37, Oh. 31, Oi. 838, Ca. 1380.

*Purchased.*

1231. The cranium of an African Negro : ♂. O. C. 5761.

A vertical section has been made through the middle of the left orbit. See description in O. C. p. 888.

C. 515, L. 185, B. 135, Bi. 730, H. 140, Hi. 757, BN. 98, BA. 102, Ai. 1041, Nh. 49, Nw. 27, Ni. 551, Ow. 39, Oh. 36, Oi. 923, Ca. 1450.

1232. The skull of an African Negro.

C. 507, L. 183, B. 133, Bi. 727, H. 132, Hi. 721, BN. 99, BA. 105, Ai. 1061, Nh. 49, Nw. 28, Ni. 571, Ow. 38, Oh. 32, Oi. 842, Ca. 1340.

*Presented by John Evans, Esq.*, 1864.

1233. The skull of an African Negro : ♀.

There is a large lozenge-shaped epactal in the supraoccipital.

C. 517, L. 196, B. 126, Bi. 643, H. 134, Hi. 684, BN. 101, BA. 105, Ai. 1040, Nh. 48, Nw. 26, Ni. 542, Ow. 40, Oh. 32, Oi. 800, Ca. 1340.

*Presented by John Evans, Esq.*, 1864.

1234. The cranium of a male Negro slave, who died in the hospital at Demerara. O. C. 5366.

C. 545, L. 193, B. 150, Bi. 777, H. 141, Hi. 731, BN. 100, BA. 113, Ai. 1130, Nh. 50, Nw. 30, Ni. 600, Ow. 42, Oh. 34, Oi. 810, Ca. 1525.

*Presented by Sir Robert H. Schomburgk*, 1844.

1235. The skull of a female Negro slave, who died in the hospital at Demerara. O. C. 5367.

C. 492, L. 176, B. 129, Bi. 733, H. 137, Hi. 778, BN. 108, BA. 111, Ai. 1028, Nh. 47, Nw. 28, Ni. 596, Ow. 39, Oh. 35, Oi. 897, Ca. 1120.

*Presented by Sir Robert H. Schomburgk*, 1844.

1236. The skull, pelvis, and most of the other bones of the skeleton of a South-American female Negro slave.

Cranium: C. 505, L. 178, B. 140, Bi. 787, H. 134, Hi. 753, BN. 100, BA. 100, Ai. 1000, Nh. 51, Nw. 26, Ni. 510, Ow. 36, Oh. 36, Oi. 1000, Ca. 1360.

*Presented by Sir Robert H. Schomburgk.*

1237. The cranium of a Negress, said to be eighteen years of age, born in the island of Jamaica. O. C. 5365.

Union of the basilar suture is almost complete. The third molars are in place. There is perfect sagittal synostosis, without any scaphocephaly or even dolichocephaly.

C. 472, L. 166, B. 132, Bi. 795, H. 124, Hi. 747, BN. 92, BA. 99, Ai. 1076, Nh. 48, Nw. 23, Ni. 479, Ow. 36, Oh. 34, Oi. 944, Ca. 1190.

*Purchased,* 1844.

1238. The articulated skeleton of a Negress, born in the United States of North America, and about sixteen years of age.

She is said to have presented all the external characters indicating purity of race.

The larger epiphyses are not united to the shafts of the long bones. The basilar suture is open; and the posterior molars are not yet in place.

Height of skeleton 4 feet 11·8 inches=1520.

Clavicle 120; humerus, *r.* 308, *l.* 305; radius, *l.* 226; femur, *r.* 447, *l.* 449; tibia, *r.* 368, *l.* 367.

Cranium: C. 497, L. 175, B. 142, Bi. 811, H. 129, Hi. 737, BN. 89, BA. 93, Ai. 1045, Nh. 43, Nw. 22, Ni. 512, Ow. 36, Oh. 33, Oi. 917, Ca. 1430.

*Presented by Professor L. J. Sanford, of Yale College,* 1867.

1239. The skull of a male Negro slave from a plantation in the State of Mississippi.

The last molars have been acquired.

C. 513, L. 181, B. 138, Bi. 762, H. 127, Hi. 702, BN. 101,

BA. 108, Ai. 1069, Nh. 51, Nw. 30, Ni. 588, Ow. 41, Oh. 40, Oi. 976.

*Purchased*, 1860*.

1240. The skull of a female Negro slave from Arkansas State.

"Taken from a burial-ground on the west bank of the Mississippi, opposite President's Island, six miles from Memphis."

C. 497, L. 177, B. 137, Bi. 774, H. 125, Hi. 706, BN. 94. BA. 97, Ai. 1032, Nh. 44, Nw. 24, Ni. 545, Ow. 41, Oh. 35, Oi. 854, Ca. 1290.

*Purchased*, 1860.

1241. The pelvis of a male Negro.

From the man whose skull is No. 146.

*Prepared in* 1870.

## B. West Coast of Africa.

1242. The skull of a male Negro, a native of Brava, one of the Cape-Verd Islands.

He was a powerful man, 6 feet 4 inches (193 cm.) high, and had been a harpooner in a South-Sea whaler. He died in the Seamen's Hospital, Greenwich, about 1835.

C. 530, L. 189, B. 144, Bi. 762, H. 136, Hi. 720, BN. 108, BA. 118, Ai. 1093, Nh. 54, Nw. 29, Ni. 537, Ow. 44, Oh. 37, Oi. 840, Ca. 1475.

*Presented by George Busk, Esq.*, 1875.

1243. The skull of a West-African Negro : ♂.

There is a small conical supernumerary tooth between the upper right lateral incisor and canine.

C. 542, L. 197, B. 144, Bi. 731, H. 145, Hi. 736, BN. 102, BA. 110, Ai. 1078, Nh. 49, Nw. 28, Ni. 571, Ow. 39, Oh. 32, Oi. 820, Ca. 1590.

*In Museum before* 1862.

* From Mr. George Russell, with the American skulls Nos. 863 to 874.

1244. The skull of a West-African Negro: ♂.

C. 520, L. 188, B. 133, Bi. 707, H. 137, Hi. 729, BN. 101, BA. 105, Ai. 1040, Nh. 47, Nw. 27, Ni. 574, Ow. 40, Oh. 33, Oi. 825, Ca. 1400.

*In Museum before* 1862.

1245. The skull of a male African from the West Coast.

From a man who died in the Seamen's Hospital, Greenwich.

C. 466, L. 168, B. 126, Bi. 750, H. 130, Hi. 774, BN. 102, BA. 114, Ai. 1117, Nh. 51, Nw. 27, Ni. 529, Ow. 38, Oh. 31, Oi. 816, Ca. 1110.

*Presented by George Busk, Esq.*, 1864.

1246. The cranium of a Krooman.

C. 516, L. 189, B. 130, Bi. 688, H. 141, Hi. 746, BN. 110, BA. 115, Ai. 1045, Nh. 48, Nw. 27, Ni. 563, Ow. 41, Oh. 33, Oi. 805, Ca. 1350.

*Purchased*, 1858.

1247. The cranium of a Krooman.

C. 532, L. 188, B. 141, Bi. 750, H. 141, Hi. 750, BN. 107, BA. 111, Ai. 1037, Nh. 50, Nw. 31, Ni. 620, Ow. 42, Oh. 36, Oi. 857, Ca. 1580.

*Purchased*, 1858.

1248. The skull of a Negro from the Gold Coast: ♂. O. C. 5364.

C. 522, L. 183, B. 145, Bi. 792, H. 144, Hi. 787, BN. 99, BA. 96, Ai. 970, Nh. 53, Nw. 29, Ni. 547, Ow. 41, Oh. 35, Oi. 854, Ca. 1610.

*Hunterian.*

1249. The articulated skeleton of a male Negro from the Gold Coast.

Thus described by the donor:—"Abookee, a donkoh (or slave); complexion very black. Had three perpendicular cuts on each cheek*. Was a native of a tract lying to the north of

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* "A correct description of the pattern of the cuts and tattooing enables one to distinguish the particular tribe to which the slaves belong."—J. R. T.

Ashantee. Spoke the Moree language. Was of unmixed Negro blood, having been brought from Coomassie in 1866 by Mr. W. C. Fynn."

The right squamosal joins the frontal.

Height 5 feet 0·5 inch = 1536.

Clavicle 132; humerus, *r.* 304, *l.* 305; radius, *r.* 246, *l.* 243; femur, *r.* 445, *l.* 443; tibia, *r.* 356, *l.* 353.

Cranium: C. 482, L. 174, B. 135, Bi. 776, H. 133, Hi. 764, BN. 97, BA. 95, Ai. 979, Nh. 43, Nw. 26, Ni. 605, Ow. 38, Oh. 33, Oi. 868, Ca. 1215.

*Presented by Staff-Surgeon J. R. Thomas and Professor Huxley*, 1868.

1250. The articulated skeleton of a young female Negro from the Gold Coast.

"Abinamah, a pure-blooded Negress, brought from Coomassie at the same time as Abookee. A native of the Ingreezi country, lying to the N.W. of Ashantee. Had two cuts, forming a <, on each cheek, the cuts meeting on the cheek, and diverging forwards to enclose the corners of the mouth. She had menstruated but once, a few days before her death. Probable age fourteen or fifteen."

The sternum and many of the bones of the hands and feet are wanting.

The basilar suture is open; the last molars are not in place; and the epiphyses of most of the long bones are not united to the shafts. The pelvis is very infantile in form, not presenting the distinguishing characters of the female sex. The squamosal joins the frontal on the left side.

Height 4 feet 9·6 inches = 1463.

Clavicle 112; humerus, *r.* 298, *l.* 291; radius 240 (approximately); femur, *r.* 428, *l.* 425; tibia, *r.* 372, *l.* 373.

Cranium: C. 469, L. 172, B. 122, Bi. 709, H. 126, Hi. 733, BN. 94, BA. 100, Ai. 1064, Nh. 41, Nw. 26, Ni. 634, Ow. 35, Oh. 30, Oi. 857, Ca. 1200.

*Presented by Staff-Surgeon J. R. Thomas and Professor Huxley*, 1868.

1251. The cranium of a Negro from Ashantee: ♂. O. C. 5378.

The squamosals unite with the frontal for the space of half an inch on both sides.

C. 485, L. 176, B. 127, Bi. 722, H. 137, Hi. 778, BN. 101, BA. 101, Ai. 1000, Nh. 48, Nw. 27, Ni. 563, Ow. 40, Oh. 30, Oi. 750, Ca. 1300.

*Presented by Robert Morrison, Esq., Surgeon R.N.**

1252. The cranium of a male Ashantee Negro.

Obtained at Amoaful, February 1874, during the Ashantee war, by Lieut. Wyatt Rawson, R.N.

C. 492, L. 179, B. 124, Bi. 693, H. 140, Hi. 782, BN. 100, BA. 106, Ai. 1060, Nh. 47, Nw. 27, Ni. 574, Ow. 37, Oh. 32, Oi. 865, Ca. 1480.

*Presented by Captain H. W. Feilden, R.A.*, 1877.

1253. The cranium of an Ashantee chief.

During the Ashantee war of 1873–74, a party of natives carrying the dead body of a chief were surprised by the English, and ran away, leaving the body on the ground. The head was secured by the donor.

All the molar and premolar teeth have been lost during life, and the calvarial sutures are completely obliterated.

C. 510, L. 185, B. 129, Bi. 751, H. 139, Hi. 751, BN. 103, BA. 102, Ai. 990, Nh. 50, Nw. 30, Ni. 600, Ow. 38, Oh. 35, Oi. 921, Ca. 1380.

*Presented by Captain Mark S. Bell, R.E., V.C.*, 1877.

1254. The cranium of a Negro child.

Brought from Fernando Po by Sir Joseph Hooker.

The milk-teeth are in place. The basi- and exoccipitals are wanting.

C. 448, L. 159, B. 121, Bi. 761, Nh. 29, Nw. 20, Ni. 690, Ow. 33, Oh. 30, Oi. 909.

*Presented by Professor Huxley*, 1879.

1255. The skull of a Negro from Novo Redondo, south of Angola: ♂.

Brought home by Mr. J. J. Monteiro, Jun.

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* This gentleman accompanied Captain Clapperton in his expedition to Timbuctoo in 1825, and with him fell a victim to the climate and fatigues of the journey.

C. 520, L. 187, B. 134, Bi. 717, H. 144, Hi. 770, BN. 104, BA. 107, Ai. 1029, Nh. 50, Nw. 27, Ni. 540, Ow. 39, Oh. 34, Oi. 872, Ca. 1510.

*Presented by Professor Huxley*, 1864.

1256. The cranium of a Negro of the Mondombe tribe.

A tribe inhabiting the country between Benguela and Mossamedes (Little Fish Bay), from 12° to 16° S. lat.

Brought home by Mr. J. J. Monteiro, Jun.

C. 510, L. 180, B. 133, Bi. 739, H. 122, Hi. 678, BN. 91, Nh. 50, Nw. 26, Ni. 520, Ow. 38, Oh. 34, Oi. 895, Ca. 1235.

*Presented by Professor Huxley*, 1864.

## C. The Soudan and Central Africa.

1257. A cranium (wanting the occipital bone) of a Negro of the Bari tribe.

Obtained by Lieut. Chippendale, R.E., of Colonel Gordon's Nile expedition, near Ragaff.

The basilar suture is not united; but all the permanent teeth have been acquired.

Nh. 44, Nw. 26, Ni. 591, Ow. 38, Oh. 33, Oi. 868.

*Presented by Colonel J. A. Grant, C.B.*, 1876.

## D. Eastern Africa.

The twenty following specimens were obtained at Quiloa by Captains Burton and Speke. They belonged to slaves of various tribes of the interior, who died from an epidemic of cholera, while waiting exportation. The first six are skulls of adult persons, the basilar suture being closed and all the permanent teeth having come into place. The remainder are immature.

1258. The cranium of a Negro from Quiloa: ♂.

C. 522, L. 189, B. 133, Bi. 704, H. 132, Hi. 698, BN. 109, Nh. 48, Nw. 25, Ni. 521, Ow. 40, Oh. 34, Oi. 850, Ca. 1340.

*Presented by the Council of the Royal Geographical Society*, 1859.

1259. The cranium of a Negro from Quiloa: ♂?

C. 515, L. 186, B. 135, Bi. 726, H. 130, Hi. 699, BN. 102, BA. 109, Ai. 1069, Nh. 51, Nw. 27, Ni. 529, Ow. 40, Oh. 36, Oi. 900, Ca. 1300.

*Presented by the Council of the Royal Geographical Society*, 1859.

1260. The cranium of a Negro from Quiloa: ♀.

C. 492, L. 174, B. 135, Bi. 776, H. 133, Hi. 764, BN. 106, BA. 105, Ai. 991, Nh. 45, Nw. 27, Ni. 600, Ow. 38, Oh. 33, Oi. 868, Ca. 1325.

*Presented by the Council of the Royal Geographical Society*, 1859.

1261. The cranium of a Negro from Quiloa: ♂.

C. 515, L. 186, B. 139, Bi. 747, H. 128, Hi. 688, BN. 103, BA. 102, Ai. 990, Nh. 49, Nw. 27, Ni. 551, Ow. 38, Oh. 33, Oi. 868, Ca. 1325.

*Presented by the Council of the Royal Geographical Society*, 1859.

1262. The cranium of a Negro from Quiloa: ♂.

C. 488, L. 176, B. 127, Bi. 722, H. 129, Hi. 733, BN. 100, BA. 105, Ai. 1050, Nh. 48, Nw. 26, Ni. 542, Ow. 35, Oh. 33, Oi. 943, Ca. 1190.

*Presented by the Council of the Royal Geographical Society*, 1859.

1263. The cranium of a Negro from Quiloa: ♀.

There is complete synostosis of the sagittal suture, though the molar teeth are unworn.

C. 490, L. 178, B. 125, Bi. 702, H. 125, Hi. 702, BN. 98, BA. 106, Ai. 1082, Nh. 46, Nw. 27, Ni. 587, Ow. 38, Oh. 34, Oi. 895, Ca. 1120.

*Presented by the Council of the Royal Geographical Society*, 1859.

In all the remaining skulls of this series the basilar suture is still open.

In the four following the third molar is quite or very nearly in place.

1264. The cranium of a young Negro from Quiloa.

C. 498, L. 183, B. 127, Bi. 694, H. 129, Hi. 705, BN. 105, BA. 109, Ai. 1038, Nh. 43, Nw. 30, Ni. 698, Ow. 37, Oh. 28, Oi. 757.

*Presented by the Council of the Royal Geographical Society*, 1859.

1265. The cranium of a young Negro from Quiloa.

C. 513, L. 184, B. 135, Bi. 734, H. 125, Hi. 679, BN. 96, Nh. 47, Nw. 25, Ni. 532, Ow. 38, Oh. 37, Oi. 974.

*Presented by the Council of the Royal Geographical Society*, 1859.

1266. The cranium of a young Negro from Quiloa.

C. 517, L. 184, B. 139, Bi. 755, H. 143, Hi. 777, BN. 95, BA. 98, Ai. 1032, Nh. 47, Nw. 27, Ni. 574, Ow. 36, Oh. 36, Oi. 1000.

*Presented by the Council of the Royal Geographical Society*, 1859.

1267. The cranium of a young Negro from Quiloa.

C. 488, L. 175, B. 125, Bi. 714, H. 130, Hi. 743, BN. 93, BA. 96, Ai. 1032, Nh. 44, Nw. 23, Ni. 523, Ow. 36, Oh. 34, Oi. 944.

*Presented by the Council of the Royal Geographical Society*, 1859.

In the four following specimens all the milk-teeth have been shed, the second permanent molar is in place, but the third is still concealed in the alveolus.

1268. The cranium of a young Negro from Quiloa.

C. 492, L. 178, B. 127, Bi. 713, H. 125, Hi. 702, BN. 90, BA. 95, Ai. 1056, Nh. 45, Nw. 23, Ni. 511, Ow. 34, Oh. 33, Oi. 971.

*Presented by the Council of the Royal Geographical Society*, 1859.

1269. The cranium of a young Negro from Quiloa.

C. 498, L. 181, B. 130, Bi. 718, H. 128, Hi. 707, BN. 92, BA. 98, Ai. 1065, Nh. 44, Nw. 23, Ni. 523, Ow. 39, Oh. 34, Oi. 872.

*Presented by the Council of the Royal Geographical Society*, 1859.

1270. The cranium of a young Negro from Quiloa.

C. 497, L. 180, B. 130, Bi. 722, H. 134, Hi. 744, BN. 93, BA. 96, Ai. 1032, Nh. 42, Nw. 26, Ni. 619, Ow. 37, Oh. 30, Oi. 811.

*Presented by the Council of the Royal Geographical Society*, 1859.

1271. The cranium of a young Negro from Quiloa.

C. 473, L. 175, B. 125, Bi. 714, H. 133, Hi. 760, BN. 96, BA. 99, Ai. 1031, Nh. 41, Nw. 25, Ni. 610, Ow. 35, Oh. 33, Oi. 943.

*Presented by the Council of the Royal Geographical Society*, 1859.

In the three following the second milk-molars are retained, and the second permanent molars are coming into place.

1272. The cranium of a Negro child from Quiloa.

C. 495, L. 183, B. 132, Bi. 721, H. 130, Hi. 710, BN. 91, BA. 93, Ai. 1022, Nh. 42, Nw. 26, Ni. 619, Ow. 36, Oh. 33, Oi. 917.

*Presented by the Council of the Royal Geographical Society*, 1859.

1273. The cranium of a Negro child from Quiloa.

C. 491, L. 175, B. 132, Bi. 754, H. 130, Hi. 743, BN. 94, BA. 97, Ai. 1032, Nh. 46, Nw. 27, Ni. 587, Ow. 37, Oh. 34. Oi. 919.

*Presented by the Council of the Royal Geographical Society*, 1859.

1274. The cranium of a Negro child from Quiloa.

C. 500, L. 185, B. 130, Bi. 703, H. 126, Hi. 681, BN. 92, BA. 95, Ai. 1033, Nh. 41, Nw. 23, Ni. 561, Ow. 36, Oh. 32, Oi. 889.

*Presented by the Council of the Royal Geographical Society*, 1859.

In the three following both the milk-molars and the first permanent molars are in place.

1275. The cranium of a Negro child from Quiloa.

C. 481, L. 175, B. 130, Bi. 743, H. 129, Hi. 737, BN. 86,

BA. 87, Ai. 1012, Nh. 37, Nw. 23, Ni. 622, Ow. 35, Oh. 31, Oi. 886.

*Presented by the Council of the Royal Geographical Society*, 1859.

1276. The cranium of a Negro child from Quiloa.

There is synostosis of the posterior two thirds of the sagittal suture.

C. 470, L. 173, B. 119, Bi. 688, H. 119, Hi. 688, BN. 88, BA. 87, Ai. 978, Nh. 41, Nw. 25, Ni. 610, Ow. 35, Oh. 31, Oi. 886.

*Presented by the Council of the Royal Geographical Society*, 1859.

1277. The cranium of a Negro child from Quiloa.

C. 470, L. 173, B. 123, Bi. 711, H. 118, Hi. 682, BN. 86, BA. 87, Ai. 1012, Nh. 34, Nw. 20, Ni. 588, Ow. 34, Oh. 27, Oi. 794.

*Presented by the Council of the Royal Geographical Society*, 1859.

The five following specimens were collected near the river Shiré, in 1863, by Dr. Kirk, attached to Livingstone's second expedition.

In all which retain the incisors, these teeth are deeply notched with a file in the middle of the cutting-edge.

1278. The skull of a Manganja Negro : ♂.

Metopic.

C. 512, L. 183, B. 134, Bi. 732, H. 129, Hi. 705, BN. 97, Nh. 45, Nw. 26, Ni. 578, Ow. 37, Oh. 31, Oi. 838, Ca. 1280.

*Presented by Dr. John Kirk*, 1864.

1279. The skull of a Manganja Negro.

C. 502, L. 182, B. 131, Bi. 720, H. 134, Hi. 736, BN. 100, Nh. 47, Nw. 27, Ni. 574, Ow. 39, Oh. 34, Oi. 872, Ca. 1235.

*Presented by Dr. John Kirk*, 1864.

1280. The skull of a Manganja Negro.

C. 485, L. 176, B. 125, Bi. 710, H. 132, Hi. 750, BN. 99, Nh. 47, Nw. 26, Ni. 553, Ow. 37, Oh. 32, Oi. 865, Ca. 1210.

*Presented by Dr. John Kirk*, 1864.

1281. The skull of a Manganja Negro.

The right squamosal meets the frontal.

C. 482, L. 177, B. 122, Bi. 689, H. 124, Hi. 701, BN. 97, BA. 102, Ai. 1052, Nh. 42, Nw. 24, Ni. 571, Ow. 36, Oh. 30, Oi. 833, Ca. 1180.

*Presented by Dr. John Kirk*, 1864.

1282. The skull of a young Maganja Negro.

The basilar suture is open. The third molars are not in place. The second upper milk-molar is retained.

C. 478, L. 173, B. 128, Bi. 740, H. 128, Hi. 740, BN. 96, BA. 104, Ai. 1083, Nh. 43, Nw. 23, Ni. 535, Ow. 37, Oh. 33, Oi. 892, Ca. 1260.

*Presented by Dr. John Kirk*, 1864.

## E. South Africa.

1283. The skull of a Zulu: ♂.

Obtained from a native battle-field by Major Blair, who presented it to the donor.

On the left side the squamosal reaches to the frontal; on the right an epipteric bone is interposed.

C. 514, L. 181, B. 139, Bi. 768, H. 145, Hi. 801, BN. 101, BA. 96, Ai. 950, Nh. 46, Nw. 26, Ni. 565, Ow. 39, Oh. 34, Oi. 872, Ca. 1480.

*Presented by George Busk, Esq.*, 1868.

1284. The cranium of a Zulu: ♂.

This and the following specimen were obtained in Natal by Dr. Frank, Assistant-Surgeon H.M. Army, and by him presented to the donor.

C. 520, L. 190, B. 132, Bi. 695, H. 139, Hi. 732, BN. 102, BA. 107, Ai. 1049, Nh. 49, Nw. 26, Ni. 531, Ow. 38, Oh. 30, Oi. 789, Ca. 1430.

*Presented by T. Spencer Wells, Esq.*, 1865.

1285. The cranium of a Zulu: ♀.

There is complete synostosis of the sagittal and of the sphenofrontal sutures.

C. 496, L. 176, B. 132, Bi. 750, H. 133, Hi. 756, BN. 96, BA. 100, Ai. 1042, Nh. 48, Nw. 26, Ni. 542, Ow. 37, Oh. 32, Oi. 865, Ca. 1240.

*Presented by T. Spencer Wells, Esq.*, 1865.

1286. The skull of a female Kaffir, of the Amabaca tribe, from Natal.

"Her age was about twenty. She was rather below the average height (being about five feet), of excellent character, and giving great promise of steady perseverance as a useful domestic servant."

C. 495, L. 178, B. 129, Bi. 725, H. 134, Hi. 753, BN. 99, BA. 97, Ai. 980, Nh. 48, Nw. 27, Ni. 563, Ow. 38, Oh. 33, Oi. 868, Ca. 1300.

*Presented by Dr. P. C. Sutherland, Surveyor-General of Natal*, 1879.

1287. The cranium of a male Kaffir. O. C. 5360.

An unusually heavy cranium. The squamosal joins the frontal on both sides.

C. 538, L. 192, B. 139, Bi. 724, H. 139, Hi. 724, BN. 107, BA. 114, Ai. 1065, Nh. 50, Nw. 31, Ni. 620, Ow. 40, Oh. 33, Oi. 825, Ca. 1550.

*Presented by Benjamin Travers, Esq., jun.*, 1849.

1288. The skull of a Kaffir. O. C. 5361.

C. 510, L. 183, B. 137, Bi. 749, H. 132, Hi. 721, BN. 98, BA. 102, Ai. 1041, Nh. 48, Nw. 27, Ni. 563, Ow. 38, Oh. 36, Oi. 947, Ca. 1240.

*From the Collection of J. F. South, Esq. Purchased*, 1835.

1289. The cranium of a young Kaffir.

"Taken from a native burial-ground by a medical officer attached to the British Army during the Kaffir war."

All the permanent teeth have been acquired; but the basilar suture is still open.

C. 484, L. 173, B. 132, Bi. 763, H. 129, Hi. 746, BN. 99, BA. 99, Ai. 1000, Nh. 45, Nw. 27, Ni. 600, Ow. 38, Oh. 32, Oi. 842, Ca. 1225.

*Presented by Frank T. Buckland, Esq.*, 1862.

1290. The skull of a Kaffir : ♂.

From a "head man," or chief, shot by a party of the Rifle Brigade at Mount Coke, British Kaffraria, during the war in May 1847. Prepared on the spot by the donor.

C. 507, L. 181, B. 137, Bi. 757, H. 143, Hi. 790, BN. 110, BA. 107, Ai. 973, Nh. 51, Nw. 26, Ni. 510, Ow. 39, Oh. 33, Oi. 846, Ca. 1400.

*Presented by W. T. Black, Esq., Staff-Surgeon H.M. Army*, 1866.

1291. The skull of a Kaffir: ♂.

Inscribed "Kaffir; Amaxosa; tribe Ngika. Male. Cradock, South Africa; May 1865. G. G."

There are still traces of the basilar suture; and the last molar teeth have been but recently acquired.

C. 520, L. 188, B. 138, Bi. 734, H. 134, Hi. 713, BN. 99, BA. 101, Ai. 1020, Nh. 46, Nw. 26, Ni. 565, Ow. 39, Oh. 36, Oi. 923, Ca. 1525.

*Presented by Professor Huxley*, 1866.

1292. The skull of a Kaffir : ♂.

Inscribed "Kaffir; Basuto; tribe Moshesh. Male. Cradock, South Africa; May 1865. G. G."

It is metopic; but the posterior part of the sagittal suture is consolidated. The first right upper premolar is displaced inwards, the canine and second premolar coming in contact.

C. 528, L. 191, B. 136, Bi. 712, H. 139, Hi. 728, BN. 104, BA. 105, Ai. 1010, Nh. 51, Nw. 30, Ni. 588, Ow. 38, Oh. 35, Oi. 921, Ca. 1610.

*Presented by Professor Huxley*, 1866.

1293. The skull of a male Kaffir.

This specimen was obtained by the donor while District Surgeon at Middleburg, South Africa, from a man who was killed by lightning while watching sheep near that place.

C. 513, L. 186, B. 133, Bi. 715, H. 130, Hi. 699, BN. 104, BA. 102, Ai. 981, Nh. 48, Nw. 24, Ni. 500, Ow. 38, Oh. 34, Oi. 895, Ca. 1400.

*Presented by James E. Coward, Esq.*, 1878.

1294. The skull of a Kaffir : ♀.

The basilar suture has but recently united.

C. 500, L. 180, B. 128, Bi. 711, H. 132, Hi. 733, BN. 102, BA. 105, Ai. 1029, Nh. 48, Nw. 26, Ni. 542, Ow. 39, Oh. 34, Oi. 872, Ca. 1280.

1295. The mutilated cranium of a South-African of the Baguani (Bechuana?) tribe. O. C. 5375.

The left side of the coronal suture is obliterated.

C. 530, L. 196, B. 134, Bi. 684, H. 132, Hi. 673, Ca. 1430.

*Purchased from Mr. E. Pearson*, 1846.

1296. The skull of a Hottentot: ♂.

Obtained and prepared by the donor when stationed at Whittlesea, North Victoria, Cape of Good Hope. It belonged to a rebel killed in the siege and capture of Shiloh from the Hottentots, February 1851, by the British forces under Major Tylden, R.E.

C. 507, L. 185, B. 130, Bi. 703, H. 138, Hi. 746, BN. 107, BA. 112, Ai. 1047, Nh. 44, Nw. 27, Ni. 614, Ow. 43, Oh. 31, Oi. 721, Ca. 1400.

*Presented by W. T. Black, Esq., Staff-Surgeon H.M. Army*, 1866.

1297. A remarkably malformed skull of a male Hottentot.

From a man, about 45 years of age, who died of a cancerous tumour (which has destroyed a considerable part of the base of the cranium) at Middleburg, South Africa, under the care of the donor, who says:—"For a Hottentot he was very intelligent, and had learned the trade of a carpenter and earned his living by it from his youth; he conversed as well as any of his caste, and had his reasoning faculties fairly developed."

The frontal region is as much depressed as in any of the artificially deformed Peruvian skulls (compare Nos. 999 and 1000); but there is no evidence of counter-pressure on the occiput. The complete consolidation of the sutures, and the extent to which the teeth are worn, seem to indicate a greater age than that assigned to the man during life.

C. 492, L. 178, B. 130, Bi. 730, Nh. 49, Nw. 26, Ni. 531, Ow. 38, Oh. 34, Oi. 895, Ca. 1360.

*Presented by James E. Coward, Esq.*, 1878.

1298. The cranium of a Hottentot: ♀. O. C. 5359.

C. 502, L. 180, B. 135, Bi. 750, H. 130, Hi. 722, BN. 97, BA. 90, Ai. 928, Nh. 45, Nw. 26, Ni. 578, Ow. 39, Oh. 32, Oi. 820, Ca. 1380.

*Purchased.*

1299. The cranium of a Koranna: ♂.

Sent from the Cape of Good Hope to the donor by the Rev. G. Williams.

C. 532, L. 193, B. 140, Bi. 725, H. 134, Hi. 694, BN. 98, BA. 104, Ai. 1061, Nh. 48, Nw. 27, Ni. 563, Ow. 37, Oh. 32, Oi. 865, Ca. 1490.

*Presented by Sir John Lubbock, Bart.*, 1874.

1300. The articulated skeleton of an adult male Bushman. O. C. 5357.

Most of the teeth have been lost during life; and the calvarial sutures are partly united.

Height 4 feet 4·5 inches=1333.

Clavicle 131; humerus, *r.* 255, *l.* 250; radius, *r.* 208, *l.* 207; femur, *r.* 356, *l.* 363; tibia, *r.* 299, *l.* 302.

Cranium: C. 500, L. 175, B. 134, Bi. 766, H. 128, Hi. 731, BN. 91, Nh. 46, Nw. 29, Ni. 630, Ow. 38, Oh. 29, Oi. 763, Ca. 1260.

*Presented by Henry Bickersteth, Esq., Surgeon to the Somerset Hospital, Capetown*, 1849.

1301. The articulated skeleton of a young female Bushman.

The larger epiphyses are not united to the shafts of the long bones. The basilar suture has recently closed. The third molars are not yet in place. The skull is metopic, and has a large median Wormian bone in the hinder part of the sagittal suture.

Height 4 feet 7·2 inches=1400.

Clavicle 116; humerus, *r.* 270, *l.* 263; radius, *r.* 210, *l.* 208; femur, *r.* 380, *l.* 380; tibia, *r.* 332, *l.* 331.

Cranium: C. 486, L. 171, B. 134, Bi. 784, H. 124, Hi. 725, BN. 91, BA. 90, Ai. 989, Nh. 44, Nw. 24, Ni. 545, Ow. 37, Oh. 32, Oi. 865, Ca. 1250.

*Presented by Henry Bickersteth, Esq.*, 1850.

1302. The skeleton of a female of the Bushman race, about 22 years of age.

She died in London, June 16th, 1864, and was dissected at the College. A description and drawing of her and her brother (called "Earthmen, from Orange-River Settlement") were given in the 'Illustrated London News' for November 6th, 1852; and an account of the dissection, by W. H. Flower and J. Murie, M.D., in 'The Journal of Anatomy' for May 1867. Most of the bones are mounted in the "separate series of homologous bones."

The basilar suture is united; and the third molars (except the right upper) are in place.

Clavicle, *r.* 121, *l.* 120; humerus, *r.* 257, *l.* 247; radius, *r.* 186, *l.* 185; femur, *r.* 376, *l.* 378; tibia, *r.* 288, *l.* 288.

Cranium: C. 477, L. 170, B. 130, Bi. 765, H. 125, Hi. 735, BN. 90, BA. 87, Ai. 967, Nh. 44, Nw. 27, Ni. 614, Ow. 38, Oh. 31, Oi. 816, Ca. 1170.

1303. The skull of a Bushman: ♂.

Received from the Cape of Good Hope, with the skin and hair (which presented all the characteristics of the race) still upon it.

Many of the teeth have been lost during life; and the remainder have been worn down to the roots.

C. 522, L. 185, B. 140, Bi. 757, H. 134, Hi. 724, BN. 103, Nh. 48, Nw. 29, Ni. 604, Ow. 40, Oh. 30, Oi. 750, Ca. 1400.

*Presented by Christopher Heath, Esq.*, 1867.

1304. The skull of a young female Bushman. O. C. 5358.

There is complete synostosis of the sagittal suture, though the basilar suture is not united, and the third molars are not in place.

C. 503, L. 180, B. 137, Bi. 761, H. 125, Hi. 694, BN. 92, BA. 90, Ai. 978, Nh. 43, Nw. 25, Ni. 581, Ow. 34, Oh. 30, Oi. 882, Ca. 1360.

*Presented by Henry Bickersteth, Esq.*

1305. A calvaria, probably that of a Bushman: ♀.

Sent from the Cape of Good Hope, with flint implements, to Sir John Lubbock, 1870.

C. 480, L. 171, B. 132, Bi. 772, H. 119, Hi. 696, Ca. 1075.

*Presented by George Busk, Esq.*, 1878.

## F. Madagascar.

1306. A cranium from Majambo Bay, N.W. coast of Madagascar. O. C. 5368.

C. 524, L. 186, B. 141, Bi. 758, H. 127, Hi. 683, BN. 95, BA. 102, Ai. 1074, Nh. 49, Nw. 27, Ni. 551, Ow. 40, Oh. 33, Oi. 825, Ca. 1460.

*Presented by Admiral Sir Edward Belcher, K.C.B.*, 1843.

# ADDITIONAL SPECIMENS RECEIVED WHILE THE CATALOGUE WAS PASSING THROUGH THE PRESS.

## Indo-Malayan Archipelago.

732 A. A skull from a cave, formerly the resort of Malay pirates, at Sine, south coast of Java : ♂.

Found with many others, February 17th, 1878, by Baron A. von Hügel.

C. 498, L. 172, B. 139, Bi. 808, H. 135, Hi. 785, BN. 100, BA. 102, Ai. 1020, Nh. 50, Nw. 27, Ni. 540, Ow. 40, Oh. 36, Oi. 900, Ca. 1370.

*Presented by Erasmus Wilson, Esq.*, 1879.

732 B. A mutilated cranium from the same cave : ♂.

From Baron A. von Hügel's collection.

C. 501, L. 171, B. 148, Bi. 865, H. 142, Hi. 830, Ca. 1500.

*Presented by Erasmus Wilson, Esq.*, 1879.

## Polynesia.

749 A. The skull of a Gilbert Islander : ♂.

Obtained in Fiji by Baron A. von Hügel.

C. 508, L. 182, B. 133, Bi. 731, H. 133, Hi. 731, BN. 111, BA. 111, Ai. 1000, Nh. 57, Nw. 25, Ni. 438, Ow. 40, Oh. 37, Oi. 925, Ca. 1400.

*Presented by Erasmus Wilson, Esq.*, 1879.

749 B. The skull of a Gilbert Islander : ♂.

Obtained in Fiji by Baron A. von Hügel.

C. 517, L. 183, B. 140, Bi. 765, H. 147, Hi. 803, BN. 110, BA. 106, Ai. 964, Nh. 56, Nw. 26, Ni. 464, Ow. 41, Oh. 37, Oi. 902, Ca. 1580.

*Presented by Erasmus Wilson, Esq.*, 1879.

749 C. The skull of a Gilbert Islander from Arorae : ♂.

Obtained in Fiji by Baron A. von Hügel. From an aged person who had lost nearly all the teeth during life.

C. 508, L. 180, B. 137, Bi. 761, H. 134, Hi. 744, BN. 102, Nh. 55, Nw. 27, Ni. 491, Ow. 42, Oh. 37, Oi. 881, Ca. 1460.

*Presented by Erasmus Wilson, Esq.*, 1879.

# ON THE CRANIAL MEASUREMENTS AS CHARACTERISTIC OF RACE.

THE various groups of Mankind—owing to their probable unity of origin, the great variability of individuals, and the possibility of all degrees of intermixture of races at remote or recent periods of the history of the species—have so much in common that it is extremely difficult to find distinctive characters, capable of strict definition, by which they may be differentiated.

It is more by the preponderance of certain characters in a large number of members of a group, than by the exclusive or even constant possession of these characters in each of its members, that the group as a whole must be characterized. Hence, in all cases in which distinctions can be expressed by the numerical method, the great value of *averages*. Provided that the data upon which these averages are based shall have been obtained from a sufficient number of individuals, they can be absolutely relied upon to express the prevailing or most characteristic development of each particular feature in any group, and permit satisfactory comparisons between the condition of that feature in different groups.

For this purpose the more important measurements given in this Catalogue have been collected, reduced to averages in each group, and tabulated (see pp. 254, 255). Although these Tables are very imperfect, owing to many of the groups being unfortunately at present but poorly represented, it is thought that the conclusions derived from a collection of such magnitude must be of some interest as a contribution to our knowledge of the physical characters of man, especially when compared with and corrected by similar tables based on other collections.

In the averages of the different groups, only adult skulls (those in which the basilar suture has been consolidated) have been taken, and all measurements which may have been affected either by artificial or pathological deformation have been rejected. Both sexes are included in the indices, as the numbers

are generally not sufficient to allow of separation, and the sexual differences (except perhaps in the case of the orbital index) are usually very inconsiderable. For the cranial capacities, however, the skulls of males only have been used. By doing so the number available for the averages has certainly been diminished; but this is a less disadvantage than the vitiation of the comparison which would be occasioned by a mixture of the two sexes in unequal proportions in different groups.

The number of individual measurements upon which each average is based is placed below it in smaller figures within brackets, as thereby some estimate may be formed of the relative value of the conclusion. When the number is high the average is more to be relied on than when it is low.

The characters derived from measurements are conveniently expressed in a nomenclature due in great part to Broca, and founded on the principal that a certain general or medium conformation can be assumed in each case. Those indices which come near to this constitute one group; those removed in either direction form other groups; so that in each case a threefold division results. For some purposes it may be convenient to multiply the divisions still further, as is done by Broca in the case of the important latitudinal or cephalic index; but for ordinary use the division into three is most convenient.

The indices of breadth (latitudinal or cephalic indices) are*:—

| | |
|---|---|
| *Dolichocephalic* . . . . . | below 750 |
| *Mesaticephalic* . . . . . | 750 to 800 |
| *Brachycephalic* . . . . . | above 800 |

The index of height is not usually divided into special groups, as its chief interest lies in its relation to the breadth index, espe-

* Broca's division is:—

| | |
|---|---|
| 1. True dolichocephalic ..... | below 750 |
| 2. Sub-dolichocephalic ..... | 750 to 778 |
| 3. Mesaticephalic ..... | 778 to 800 |
| 4. Sub-brachycephalic ..... | 800 to 833 |
| 5. True brachycephalic ..... | above 833 |

"Sur la Classification et la Nomenclature Crâniologiques d'après les Indices Céphaliques" (Revue d'Anthropologie, tome i. p. 385: 1872).

cially as to whether it is greater or less. In the former case it may be called *hypsicephalic*, in the latter *tapeinocephalic*, though these terms are generally reserved for extreme variations in these directions.

Alveolar indices:

| | |
|---|---|
| *Orthognathous* . . . . | below 980 |
| *Mesognathous* . . . . | 980 to 1030 |
| *Prognathous* . . . . . | above 1030 |

Nasal indices:

| | |
|---|---|
| *Leptorhine* . . . . . | below 480 |
| *Mesorhine* . . . . . | 480 to 530 |
| *Platyrhine* . . . . . | above 530 |

Orbital indices:

| | |
|---|---|
| *Microseme* . . . . . | below 840 |
| *Mesoseme* . . . . . | 840 to 890 |
| *Megaseme* . . . . . | above 890 |

It will be observed that in each case a range of $\frac{5}{100}$ is allowed for the central series, the middle of which is assumed to be the general average for the whole species. Beyond this limit the two extremes may be considered to commence.

In the same way the cerebral capacities may be classed as

| | cub. centims. |
|---|---|
| *Microcephalic* . . . . | below 1350 |
| *Mesocephalic* . . . . | 1350 to 1450 |
| *Megacephalic* . . . . | above 1450 |

1400 cubic centimetres being the assumed general average of the whole species.

These artificial divisions, although convenient to assist the memory, and to give some general idea of the position of any index in relation to others, do not suffice for accurate comparisons. It is often necessary, for instance, to know of an index in the middle series whether it tends to either extreme, or of one in an outside series whether the deviation from the medium form is moderate or excessive. For such purposes the numbers must be used, as they express more truly the exact position held by the index in the whole series.

Moreover, though the averages are valuable as general indications of the prevailing characteristics of the groups, they alone are not sufficient for the complete knowledge of these characteristics, as without a further analysis of the individual indices it is not possible to say whether there is much variation among the different members of the group thus classed together or whether a considerable number come close to the general average. In the former case it will be suspected that the group is a compound one, derived from the crossing of others, which, in this character at least, differed from one another; or at all events that this particular character is one of comparatively little importance. In the latter case the group may be assumed to be more pure, and the character in question will become of value as one of its distinctive features; and the larger the number of characters presenting a small tendency to variation, the more pure the race may be considered, and the more capable of ready diagnosis by its physical structure.

It is obvious that such a method of analysis can only be applied with success to a large series of individuals—larger than most of those to be found in the present Catalogue; but some examples will suffice to show the kind of results to be obtained from it.

In the first group (the inhabitants of Europe generally) it will be seen, by a reference to the pages of the Catalogue, that the indices of breadth, though giving an average of 787, and thus placing it in the series of mesaticephalic races, vary greatly in different individuals; and of the whole number 43·7 per cent. are brachycephalic, 39·4 mesaticephalic, and 16·9 dolichocephalic. There are therefore actually more crania belonging to the first category than to that to which the general average belongs; and probably but for the large proportion of short-headed Southern Europeans which the collection happens to contain, the numbers would be more equally distributed through the three series. Hence no special form of cranium, as shown by the latitudinal index, can be held as characteristic of this group. In drawing distinctions, however, among its various subdivisions, this index may become of importance; but the materials available in the collection are not sufficient to pursue this branch of the subject further with advantage. In the

| | Bi. | Hi. | Ai. | Ni. | Oi. | Capacity. |
|---|---|---|---|---|---|---|
| Mixed European (including English) .... | 787 (223) *Mesaticephalic.* | 736 (215) | 962 (184) *Orthognathous.* | 470 (207) *Leptorhine.* | 870 (208) *Mesoseme.* | 1497 (138) *Megacephalic.* |
| English alone (mostly of lowest class) .... | 762 (37) *Mesaticephalic.* | 714 (36) | 956 (31) *Orthognathous.* | 460 (33) *Leptorhine.* | 884 (33) *Mesoseme.* | 1511 (24) *Megacephalic.* |
| Guanches ..... | 765 (6) *Mesaticephalic.* | 726 (6) | 971 (6) *Orthognathous.* | 490 (6) *Leptorhine.* | 796 (6) *Microseme.* | 1492 (6) *Megacephalic.* |
| Ancient Egyptians..... | 756 (30) *Mesaticephalic.* | 731 (28) | 950 (22) *Orthognathous.* | 487 (25) *Leptorhine.* | 862 (28) *Mesoseme.* | 1454 (13) *Megacephalic.* |
| Mixed inhabitants of Hindustan (chiefly Maravars and other low-caste natives).. | 754 (34) *Mesaticephalic.* | 758 (34) | 987 (29) *Mesognathous.* | 502 (33) *Mesorhine.* | 874 (34) *Mesoseme.* | 1313 (22) *Microcephalic.* |
| Veddahs..... | 711 (7) *Dolichocephalic.* | 747 (7) | 963 (6) *Orthognathous.* | 503 (5) *Mesorhine.* | 853 (7) *Mesoseme.* | 1259 (5) *Microcephalic.* |
| Mongolians of Siberia and Central Asia .. | 880 (5) *Dolichocephalic.* | 728 (5) | 1031 (3) *Prognathous.* | 444 (4) *Leptorhine.* | 881 (4) *Mesoseme.* | 1473 (3) *Megacephalic.* |
| Chinese ..... | 788 (17) *Mesaticephalic.* | 752 (17) | 990 (17) *Mesognathous.* | 498 (18) *Mesorhine.* | 899 (18) *Mesoseme.* | 1424 (16) *Mesocephalic.* |
| Japanese..... | 768 (7) *Mesaticephalic.* | 753 (7) | 984 (7) *Mesognathous.* | 473 7) *Leptorhine.* | 925 (7) *Megaseme.* | 1486 (6) *Megacephalic.* |
| Burmese..... | 826 (4) *Brachycephalic.* | 807 (4) | 997 (4) *Mesognathous.* | 482 (4) *Mesorhine.* | 878 (4) *Mesoseme.* | 1473 (4) *Megacephalic.* |
| Mixed inhabitants of the Indo-Malayan archipelago, mostly Malays of various tribes | 806 (19) *Brachycephalic.* | 769 (18) | 996 (13) *Mesognathous.* | 497 (17) *Mesorhine.* | 882 (17) *Mesoseme.* | 1429 (16) *Mesocephalic.* |

| | | | | | | |
|---|---|---|---|---|---|---|
| Mixed Polynesians, containing a large proportion of Maories | 759 (50) *Mesaticephalic.* | 755 (42) | 986 (38) *Mesognathous.* | 477 (48) *Leptorhine.* | 912 (48) *Megaseme.* | 1469 (26) *Megacephalic.* |
| Eskimo | 722 (27) *Dolichocephalic.* | 737 (27) | 1006 (24) *Mesognathous.* | 437 (24) *Leptorhine.* | 890 (24) *Megaseme.* | 1546 (17) *Megacephalic.* |
| American Indians of all tribes, including a large proportion of Ancient Peruvians (obviously deformed crania being omitted) | 839 (108) *Brachycephalic.* | 785 (106) | 1020 (109) *Mesognathous.* | 472 (123) *Leptorhine.* | 915 (127) *Megaseme.* | 1368 (53) *Mesocephalic.* |
| Australians | 710 (53) *Dolichocephalic.* | 715 (53) | 1036 (51) *Prognathous.* | 569 (50) *Platyrhine.* | 809 (51) *Microseme.* | 1298 (32) *Microcephalic.* |
| Tasmanians | 763 (14) *Mesaticephalic.* | 726 (14) | 1033 (11) *Prognathous.* | 574 (14) *Platyrhine.* | 808 (14) ♂ 767, ♀ 849 *Microseme.* | 1309 (6) *Microcephalic.* |
| Other Melanesians, including some intermixture of Polynesians, Malays, and Negritos (Andamanese omitted) | 714 (72) *Dolichocephalic.* | 749 (69) | 1034 (58) *Prognathous.* | 536 (67) *Platyrhine.* | 851 (68) *Mesoseme.* | 1345 (42) *Microcephalic.* |
| Fijian mountaineers alone (pure Melanesians) | 663 (13) *Dolichocephalic.* | 741 (13) | 1032 (9) *Prognathous.* | 571 (13) *Platyrhine.* | 870 (13) *Mesoseme.* | 1482 (8) *Megacephalic.* |
| Andamanese | 821 (14) *Brachycephalic.* | 779 (14) | 1020 (14) *Mesognathous.* | 509 (14) *Mesorhine.* | 917 (14) *Megaseme.* | 1266 (6) *Microcephalic.* |
| African Negroes of various tribes | 736 (42) *Dolichocephalic.* | 735 (42) | 1044 (36) *Prognathous.* | 568 (43) *Platyrhine.* | 863 (43) *Mesoseme.* | 1388 (26) *Mesocephalic.* |
| Kaffirs and Zulus | 731 (11) *Dolichocephalic.* | 741 (11) | 1013 (11) *Mesognathous.* | 553 (11) *Platyrhine.* | 875 (11) *Mesoseme.* | 1485 (7) *Megacephalic.* |
| Bushmen | 768 (6) *Mesaticephalic.* | 716 (6) | 978 (3) *Orthognathous.* | 595 (5) *Platyrhine.* | 815 (5) *Microseme.* | 1330 (2) *Microcephalic.* |

English, however, judging from the small series at present available, brachycephaly is rare; while among the Lapps, on the other hand, it prevails almost exclusively.

If we turn to the facial, especially the alveolar and nasal, indices of the Europeans, we shall find that they are far less variable than those of the cranium. Of the specimens that permitted measurement for these indices, 73·4 per cent. are orthognathous, 20·1 mesognathous, and only 6·5 prognathous, and 59·5 are leptorhine, 33·2 mesorhine, and only 7·3 platyrhine. It is therefore clear that the latter classes are quite exceptional, and that orthognathy and (though not quite to the same degree) leptorhiny are strong characteristics of the races inhabiting the European continent.

To take our next example from a very different group, the Australian (of which race the collection contains a fairly representative series) it will be seen that the average breadth-index is 710, placing it low down in the dolichocephalic series; and the analysis of the individuals perfectly accords with this position, as 96·5 per cent. are dolichocephalic, only 3·5 mesaticephalic, and not one brachycephalic. Hence the form of cranium, as shown by the latitudinal index, is a very important characteristic of the Australian race. Not less uniform and opposed to those of the European races are the alveolar and nasal indices, 62·7 per cent. being prognathous, 29·5 mesognathous, and only 7·8 orthognathous; 78 per cent. being platyrhine, 20 mesorhine, and 2 leptorhine. The low orbital indices and small cranial capacities are also very distinctive of this race.

The series of thirteen mountaineers of the Fiji Islands, judged by this test, should belong to a remarkably pure race, as *all* are strongly dolichocephalic (in not one is the index as high as 700), *all* have the alveolar index exceeding 1000, *all* have the nasal index exceeding 500, and, with only one exception, so high as to be placed in the platyrhine division; and they also show a great uniformity in the orbital indices, that of the males scarcely passing the boundaries on either side of the mesoseme division, while the females are all megaseme. The number of the latter sex, however, is too small for generalization.

Without entering into further details, which can be obtained by any one from an examination of the measurements given in the Catalogue, the general result may be stated to be that the prevailing characteristics of all the races placed first on the list (including those of Europe, North Africa, and South-west Asia) are a variable or moderate latitudinal index, a low alveolar index, a low nasal index, a moderate orbital index, and a high cerebral capacity. In other words, they are mesaticephalic, orthognathous, leptorhine, megaseme, and megacephalic.

The next group, or Mongoloid races, also vary much as to latitudinal index, including the extremely brachycephalic Siberian Mongols and Peruvians and the extremely dolichocephalic Eskimo. They are rarely either truly orthognathous or prognathous, though with a great tendency to the latter, especially in the American branches. The nasal index is usually low; and the Eskimo are the most leptorhine of all known races. The orbital index is usually high, and the cranial capacity very variable.

In the Australian and the dark races with frizzly hair, dolichocephaly prevails almost universally, reaching its extreme in certain Melanesians. These races are equally characterized by prognathism, by the high nasal index (all the true platyrhine races belonging to this group), and by moderate or small cranial capacities. The Negritos of the Indo-Malayan archipelago (represented in the collection by the Andamanese) and, to a less extent, the Bushmen of South Africa present certain exceptional characters of great interest.

It may fairly be inferred from these examples of the results of what is only an elementary and imperfect system of mensuration applied to crania, that when pursued in greater detail, with more ample materials and with more extended experience of what is important and what only of secondary value, this method of investigation, so far from being profitless, as some anthropologists have assumed, will prove of the greatest value in determining the nature and amount of the resemblances and differences in the physical characters of the various groups into which the human species is divided, and thereby in throwing light upon their relations to one another, their history, and their origin.

TABLE I.—

| | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115 | 767 | 762 | 757 | 752 | 747 | 742 | 737 | 732 | 728 | 723 | 719 | 714 | 710 | 706 |
| 116 | 773 | 768 | 763 | 758 | 753 | 748 | 744 | 739 | 734 | 730 | 725 | 720 | 716 | 712 |
| 117 | 780 | 775 | 770 | 765 | 760 | 755 | 750 | 745 | 741 | 736 | 731 | 727 | 722 | 718 |
| 118 | 787 | 781 | 776 | 771 | 766 | 761 | 756 | 752 | 747 | 742 | 738 | 733 | 728 | 724 |
| 119 | 793 | 788 | 783 | 778 | 773 | 768 | 763 | 758 | 753 | 748 | 744 | 739 | 735 | 730 |
| 120 | 800 | 795 | 789 | 784 | 779 | 774 | 769 | 764 | 759 | 755 | 750 | 745 | 741 | 736 |
| 121 | 807 | 801 | 796 | 791 | 786 | 781 | 776 | 771 | 766 | 761 | 756 | 752 | 747 | 742 |
| 122 | 813 | 808 | 803 | 797 | 792 | 787 | 782 | 777 | 772 | 767 | 763 | 758 | 753 | 748 |
| 123 | 820 | 815 | 809 | 804 | 799 | 794 | 788 | 783 | 778 | 774 | 769 | 764 | 759 | 755 |
| 124 | 827 | 821 | 816 | 810 | 805 | 800 | 795 | 790 | 785 | 780 | 775 | 770 | 766 | 761 |
| 125 | 833 | 828 | 822 | 817 | 812 | 806 | 801 | 796 | 791 | 786 | 781 | 776 | 772 | 767 |
| 126 | 840 | 834 | 829 | 824 | 818 | 813 | 808 | 803 | 797 | 792 | 788 | 783 | 778 | 773 |
| 127 | 847 | 841 | 836 | 830 | 825 | 819 | 814 | 809 | 804 | 799 | 794 | 789 | 784 | 779 |
| 128 | 853 | 848 | 842 | 837 | 831 | 826 | 821 | 815 | 810 | 805 | 800 | 795 | 790 | 785 |
| 129 | 860 | 854 | 849 | 843 | 838 | 832 | 827 | 822 | 816 | 811 | 806 | 801 | 796 | 791 |
| 130 | 867 | 861 | 855 | 850 | 844 | 839 | 833 | 828 | 823 | 818 | 813 | 807 | 802 | 798 |
| 131 | 873 | 868 | 862 | 856 | 851 | 845 | 840 | 834 | 829 | 824 | 819 | 814 | 809 | 804 |
| 132 | 880 | 874 | 868 | 863 | 857 | 852 | 846 | 841 | 835 | 830 | 825 | 820 | 815 | 810 |
| 133 | 887 | 881 | 875 | 869 | 864 | 858 | 853 | 847 | 842 | 836 | 831 | 826 | 821 | 816 |
| 134 | 893 | 887 | 882 | 876 | 870 | 865 | 859 | 854 | 848 | 843 | 838 | 832 | 827 | 822 |
| 135 | 900 | 894 | 888 | 882 | 877 | 871 | 865 | 860 | 854 | 849 | 844 | 839 | 833 | 828 |
| 136 | 907 | 901 | 895 | 889 | 883 | 877 | 872 | 866 | 861 | 855 | 850 | 845 | 840 | 834 |
| 137 | 913 | 907 | 901 | 895 | 890 | 884 | 878 | 873 | 867 | 862 | 856 | 851 | 846 | 841 |
| 138 | 920 | 914 | 908 | 902 | 896 | 890 | 885 | 879 | 873 | 868 | 863 | 857 | 852 | 847 |
| 139 | 927 | 921 | 914 | 908 | 903 | 897 | 891 | 885 | 880 | 874 | 869 | 863 | 858 | 853 |
| 140 | 933 | 927 | 921 | 915 | 909 | 903 | 897 | 892 | 886 | 881 | 875 | 870 | 864 | 859 |
| 141 | 940 | 934 | 928 | 922 | 916 | 910 | 904 | 898 | 892 | 887 | 881 | 876 | 870 | 865 |
| 142 | 947 | 940 | 934 | 928 | 922 | 916 | 910 | 904 | 899 | 893 | 888 | 882 | 877 | 871 |
| 143 | 953 | 947 | 941 | 935 | 929 | 923 | 917 | 911 | 905 | 899 | 894 | 888 | 883 | 877 |
| 144 | 960 | 954 | 947 | 941 | 935 | 929 | 923 | 917 | 911 | 906 | 900 | 894 | 889 | 883 |
| 145 | 967 | 960 | 954 | 948 | 942 | 935 | 929 | 924 | 918 | 912 | 906 | 901 | 895 | 890 |
| 146 | 973 | 967 | 961 | 954 | 948 | 942 | 936 | 930 | 924 | 918 | 913 | 907 | 901 | 896 |
| 147 | 980 | 974 | 967 | 961 | 955 | 948 | 942 | 936 | 930 | 925 | 919 | 913 | 907 | 902 |
| 148 | 987 | 980 | 974 | 967 | 961 | 955 | 949 | 943 | 937 | 931 | 925 | 919 | 914 | 908 |
| 149 | 993 | 987 | 980 | 974 | 968 | 961 | 955 | 949 | 943 | 937 | 931 | 925 | 920 | 914 |
| 150 | 1000 | 993 | 987 | 980 | 974 | 968 | 962 | 955 | 949 | 943 | 938 | 932 | 926 | 920 |
| 151 | 1007 | 1000 | 993 | 987 | 981 | 974 | 968 | 962 | 956 | 950 | 944 | 938 | 932 | 926 |
| 152 | 1013 | 1007 | 1000 | 993 | 987 | 981 | 974 | 968 | 962 | 956 | 950 | 944 | 938 | 933 |
| 153 | 1020 | 1013 | 1007 | 1000 | 994 | 987 | 981 | 975 | 968 | 962 | 956 | 950 | 944 | 939 |
| 154 | 1027 | 1020 | 1013 | 1007 | 1000 | 994 | 987 | 981 | 975 | 969 | 963 | 957 | 951 | 945 |
| 155 | 1033 | 1026 | 1020 | 1013 | 1006 | 1000 | 994 | 987 | 981 | 975 | 969 | 963 | 957 | 951 |
| 156 | 1040 | 1033 | 1026 | 1020 | 1013 | 1006 | 1000 | 994 | 987 | 981 | 975 | 969 | 963 | 957 |
| 157 | 1047 | 1040 | 1033 | 1026 | 1019 | 1013 | 1006 | 1000 | 994 | 987 | 981 | 975 | 969 | 963 |
| 158 | 1053 | 1046 | 1039 | 1033 | 1026 | 1019 | 1013 | 1006 | 1000 | 994 | 988 | 981 | 975 | 969 |
| 159 | 1060 | 1053 | 1046 | 1039 | 1032 | 1026 | 1019 | 1013 | 1006 | 1000 | 994 | 988 | 981 | 975 |
| 160 | 1067 | 1060 | 1053 | 1046 | 1039 | 1032 | 1026 | 1019 | 1013 | 1006 | 1000 | 994 | 988 | 982 |
| 161 | 1073 | 1066 | 1059 | 1052 | 1045 | 1039 | 1032 | 1025 | 1019 | 1013 | 1006 | 1000 | 994 | 988 |
| 162 | 1080 | 1073 | 1066 | 1059 | 1052 | 1045 | 1038 | 1032 | 1025 | 1019 | 1013 | 1006 | 1000 | 994 |
| 163 | 1087 | 1079 | 1072 | 1065 | 1058 | 1052 | 1045 | 1038 | 1032 | 1025 | 1019 | 1012 | 1006 | 1000 |
| 164 | 1093 | 1086 | 1079 | 1072 | 1065 | 1058 | 1051 | 1045 | 1038 | 1031 | 1025 | 1019 | 1012 | 1006 |
| 165 | 1100 | 1093 | 1086 | 1078 | 1071 | 1065 | 1058 | 1051 | 1044 | 1038 | 1031 | 1025 | 1019 | 1012 |
| | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 |

## Breadth and Height Index.

| | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115 | 701 | 697 | 693 | 689 | 685 | 680 | 676 | 673 | 669 | 665 | 661 | 657 | 653 | 650 | 115 |
| 116 | 707 | 703 | 699 | 695 | 690 | 686 | 682 | 678 | 674 | 671 | 667 | 663 | 659 | 655 | 116 |
| 117 | 713 | 709 | 705 | 701 | 696 | 692 | 688 | 684 | 680 | 676 | 672 | 669 | 665 | 661 | 117 |
| 118 | 720 | 715 | 711 | 707 | 702 | 698 | 694 | 690 | 686 | 682 | 678 | 674 | 670 | 667 | 118 |
| 119 | 726 | 721 | 717 | 713 | 708 | 704 | 700 | 696 | 692 | 688 | 684 | 680 | 676 | 672 | 119 |
| 120 | 732 | 727 | 723 | 719 | 714 | 710 | 706 | 702 | 698 | 694 | 690 | 686 | 682 | 678 | 120 |
| 121 | 738 | 733 | 729 | 725 | 720 | 716 | 712 | 708 | 703 | 699 | 695 | 691 | 688 | 684 | 121 |
| 122 | 744 | 739 | 735 | 731 | 726 | 722 | 718 | 713 | 709 | 705 | 701 | 697 | 693 | 689 | 122 |
| 123 | 750 | 745 | 741 | 737 | 732 | 728 | 724 | 719 | 715 | 711 | 707 | 703 | 699 | 695 | 123 |
| 124 | 756 | 751 | 747 | 743 | 738 | 734 | 729 | 725 | 721 | 717 | 713 | 709 | 705 | 701 | 124 |
| 125 | 762 | 758 | 753 | 749 | 744 | 740 | 735 | 731 | 727 | 723 | 718 | 714 | 710 | 706 | 125 |
| 126 | 768 | 764 | 759 | 754 | 750 | 746 | 741 | 737 | 733 | 728 | 724 | 720 | 716 | 712 | 126 |
| 127 | 774 | 770 | 765 | 760 | 756 | 751 | 747 | 743 | 738 | 734 | 730 | 726 | 722 | 718 | 127 |
| 128 | 780 | 776 | 771 | 766 | 762 | 757 | 753 | 749 | 744 | 740 | 736 | 731 | 727 | 723 | 128 |
| 129 | 787 | 782 | 777 | 772 | 768 | 763 | 759 | 754 | 750 | 746 | 741 | 737 | 733 | 729 | 129 |
| 130 | 793 | 788 | 783 | 778 | 774 | 769 | 765 | 760 | 756 | 751 | 747 | 743 | 739 | 734 | 130 |
| 131 | 799 | 794 | 789 | 784 | 780 | 775 | 771 | 766 | 762 | 757 | 753 | 749 | 744 | 740 | 131 |
| 132 | 805 | 800 | 795 | 790 | 786 | 781 | 776 | 772 | 767 | 763 | 759 | 754 | 750 | 746 | 132 |
| 133 | 811 | 806 | 801 | 796 | 792 | 787 | 782 | 778 | 773 | 769 | 764 | 760 | 756 | 751 | 133 |
| 134 | 817 | 812 | 807 | 802 | 798 | 793 | 788 | 784 | 779 | 775 | 770 | 766 | 761 | 757 | 134 |
| 135 | 823 | 818 | 813 | 808 | 804 | 799 | 794 | 789 | 785 | 780 | 776 | 771 | 767 | 763 | 135 |
| 136 | 829 | 824 | 819 | 814 | 810 | 805 | 800 | 795 | 791 | 786 | 782 | 777 | 773 | 768 | 136 |
| 137 | 835 | 830 | 825 | 820 | 815 | 811 | 806 | 801 | 797 | 792 | 787 | 783 | 778 | 774 | 137 |
| 138 | 841 | 836 | 831 | 826 | 821 | 817 | 812 | 807 | 802 | 798 | 793 | 789 | 784 | 780 | 138 |
| 139 | 848 | 842 | 837 | 832 | 827 | 822 | 818 | 813 | 808 | 803 | 799 | 794 | 790 | 785 | 139 |
| 140 | 854 | 848 | 843 | 838 | 833 | 828 | 824 | 819 | 814 | 809 | 805 | 800 | 795 | 791 | 140 |
| 141 | 860 | 855 | 849 | 844 | 839 | 834 | 829 | 825 | 820 | 815 | 810 | 806 | 801 | 797 | 141 |
| 142 | 866 | 861 | 855 | 850 | 845 | 840 | 835 | 830 | 826 | 821 | 816 | 811 | 807 | 802 | 142 |
| 143 | 872 | 867 | 861 | 856 | 851 | 846 | 841 | 836 | 831 | 827 | 822 | 817 | 813 | 808 | 143 |
| 144 | 878 | 873 | 867 | 862 | 857 | 852 | 847 | 842 | 837 | 832 | 828 | 823 | 818 | 814 | 144 |
| 145 | 884 | 879 | 873 | 868 | 863 | 858 | 853 | 848 | 843 | 838 | 833 | 829 | 824 | 819 | 145 |
| 146 | 890 | 885 | 880 | 874 | 869 | 864 | 859 | 854 | 849 | 844 | 839 | 834 | 830 | 825 | 146 |
| 147 | 896 | 891 | 886 | 880 | 875 | 870 | 865 | 860 | 855 | 850 | 845 | 840 | 835 | 831 | 147 |
| 148 | 902 | 897 | 892 | 886 | 881 | 876 | 871 | 865 | 860 | 855 | 851 | 846 | 841 | 836 | 148 |
| 149 | 909 | 903 | 898 | 892 | 887 | 882 | 876 | 871 | 866 | 861 | 856 | 851 | 847 | 842 | 149 |
| 150 | 915 | 909 | 904 | 898 | 893 | 888 | 882 | 877 | 872 | 867 | 862 | 857 | 852 | 847 | 150 |
| 151 | 921 | 915 | 910 | 904 | 899 | 893 | 888 | 883 | 878 | 873 | 868 | 863 | 858 | 853 | 151 |
| 152 | 927 | 921 | 916 | 910 | 905 | 899 | 894 | 889 | 884 | 879 | 874 | 869 | 864 | 859 | 152 |
| 153 | 933 | 927 | 922 | 916 | 911 | 905 | 900 | 895 | 890 | 884 | 879 | 874 | 869 | 864 | 153 |
| 154 | 939 | 933 | 928 | 922 | 917 | 911 | 906 | 901 | 895 | 890 | 885 | 880 | 875 | 870 | 154 |
| 155 | 945 | 939 | 934 | 928 | 923 | 917 | 912 | 906 | 901 | 896 | 891 | 886 | 881 | 876 | 155 |
| 156 | 951 | 946 | 940 | 934 | 929 | 923 | 918 | 912 | 907 | 902 | 897 | 891 | 886 | 881 | 156 |
| 157 | 957 | 952 | 946 | 940 | 935 | 929 | 924 | 918 | 913 | 908 | 902 | 897 | 892 | 887 | 157 |
| 158 | 963 | 958 | 952 | 946 | 940 | 935 | 929 | 924 | 919 | 913 | 908 | 903 | 898 | 893 | 158 |
| 159 | 970 | 964 | 958 | 952 | 946 | 941 | 935 | 930 | 924 | 919 | 914 | 909 | 903 | 898 | 159 |
| 160 | 976 | 970 | 964 | 958 | 952 | 947 | 941 | 936 | 930 | 925 | 920 | 914 | 909 | 904 | 160 |
| 161 | 982 | 976 | 970 | 964 | 958 | 953 | 947 | 942 | 936 | 931 | 925 | 920 | 915 | 910 | 161 |
| 162 | 988 | 982 | 976 | 970 | 964 | 959 | 953 | 947 | 942 | 936 | 931 | 926 | 920 | 915 | 162 |
| 163 | 993 | 988 | 982 | 976 | 970 | 964 | 959 | 953 | 948 | 942 | 937 | 931 | 926 | 921 | 163 |
| 164 | 1000 | 994 | 988 | 982 | 976 | 970 | 965 | 959 | 953 | 948 | 943 | 937 | 932 | 927 | 164 |
| 165 | 1006 | 1000 | 994 | 988 | 982 | 976 | 971 | 965 | 959 | 954 | 948 | 943 | 938 | 932 | 165 |
| | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | |

| | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115 | 646 | 642 | 639 | 635 | 632 | 628 | 625 | 622 | 618 | 615 | 612 | 608 | 605 | 602 | 115 |
| 116 | 652 | 648 | 644 | 641 | 637 | 634 | 630 | 627 | 624 | 620 | 617 | 614 | 611 | 607 | 116 |
| 117 | 657 | 654 | 650 | 646 | 643 | 639 | 636 | 632 | 629 | 626 | 622 | 619 | 616 | 613 | 117 |
| 118 | 663 | 659 | 656 | 652 | 648 | 645 | 641 | 638 | 634 | 631 | 628 | 624 | 621 | 618 | 118 |
| 119 | 669 | 665 | 661 | 657 | 654 | 650 | 647 | 643 | 640 | 636 | 633 | 630 | 626 | 623 | 119 |
| 120 | 674 | 670 | 667 | 663 | 659 | 656 | 652 | 649 | 645 | 642 | 638 | 635 | 632 | 628 | 120 |
| 121 | 680 | 676 | 672 | 669 | 665 | 661 | 658 | 654 | 651 | 647 | 644 | 640 | 637 | 634 | 121 |
| 122 | 685 | 682 | 678 | 674 | 670 | 667 | 663 | 659 | 656 | 652 | 649 | 646 | 642 | 639 | 122 |
| 123 | 691 | 687 | 683 | 680 | 676 | 672 | 668 | 665 | 661 | 658 | 654 | 651 | 647 | 644 | 123 |
| 124 | 697 | 693 | 689 | 685 | 681 | 678 | 674 | 670 | 667 | 663 | 660 | 656 | 653 | 649 | 124 |
| 125 | 702 | 698 | 694 | 691 | 687 | 683 | 679 | 676 | 672 | 668 | 665 | 661 | 658 | 654 | 125 |
| 126 | 708 | 704 | 700 | 696 | 692 | 689 | 685 | 681 | 677 | 674 | 670 | 667 | 663 | 660 | 126 |
| 127 | 713 | 709 | 706 | 702 | 698 | 694 | 690 | 686 | 683 | 679 | 676 | 672 | 668 | 665 | 127 |
| 128 | 719 | 715 | 711 | 707 | 703 | 699 | 696 | 692 | 688 | 684 | 681 | 677 | 674 | 670 | 128 |
| 129 | 725 | 721 | 717 | 713 | 709 | 705 | 701 | 697 | 694 | 690 | 686 | 683 | 679 | 675 | 129 |
| 130 | 730 | 726 | 722 | 718 | 714 | 710 | 707 | 703 | 699 | 695 | 691 | 688 | 684 | 681 | 130 |
| 131 | 736 | 732 | 728 | 724 | 720 | 716 | 712 | 708 | 704 | 701 | 697 | 693 | 689 | 686 | 131 |
| 132 | 742 | 737 | 733 | 729 | 725 | 721 | 717 | 714 | 710 | 706 | 702 | 698 | 695 | 691 | 132 |
| 133 | 747 | 743 | 739 | 735 | 731 | 727 | 723 | 719 | 715 | 711 | 707 | 704 | 700 | 696 | 133 |
| 134 | 753 | 749 | 744 | 740 | 736 | 732 | 728 | 724 | 720 | 717 | 713 | 709 | 705 | 702 | 134 |
| 135 | 758 | 755 | 750 | 746 | 742 | 738 | 734 | 730 | 726 | 722 | 718 | 714 | 711 | 707 | 135 |
| 136 | 764 | 760 | 756 | 751 | 747 | 743 | 739 | 735 | 731 | 727 | 723 | 720 | 716 | 712 | 136 |
| 137 | 770 | 765 | 761 | 757 | 753 | 749 | 745 | 741 | 737 | 733 | 729 | 725 | 721 | 717 | 137 |
| 138 | 775 | 771 | 767 | 762 | 758 | 754 | 750 | 746 | 742 | 738 | 734 | 730 | 726 | 723 | 138 |
| 139 | 781 | 777 | 772 | 768 | 764 | 760 | 755 | 751 | 747 | 743 | 739 | 735 | 732 | 728 | 139 |
| 140 | 787 | 782 | 778 | 773 | 769 | 765 | 761 | 757 | 753 | 749 | 745 | 741 | 737 | 733 | 140 |
| 141 | 792 | 788 | 783 | 779 | 775 | 770 | 766 | 762 | 758 | 754 | 750 | 746 | 742 | 738 | 141 |
| 142 | 798 | 793 | 789 | 785 | 780 | 776 | 772 | 768 | 763 | 759 | 755 | 751 | 747 | 743 | 142 |
| 143 | 803 | 799 | 794 | 790 | 786 | 781 | 777 | 773 | 769 | 765 | 761 | 757 | 753 | 749 | 143 |
| 144 | 809 | 804 | 800 | 796 | 791 | 787 | 783 | 778 | 774 | 770 | 766 | 762 | 758 | 754 | 144 |
| 145 | 815 | 810 | 806 | 801 | 797 | 792 | 788 | 784 | 780 | 775 | 771 | 767 | 763 | 759 | 145 |
| 146 | 820 | 816 | 811 | 807 | 802 | 798 | 793 | 789 | 785 | 781 | 777 | 772 | 768 | 764 | 146 |
| 147 | 826 | 821 | 817 | 812 | 808 | 803 | 799 | 795 | 790 | 786 | 782 | 778 | 774 | 770 | 147 |
| 148 | 831 | 827 | 822 | 818 | 813 | 809 | 804 | 800 | 796 | 791 | 787 | 783 | 779 | 775 | 148 |
| 149 | 837 | 832 | 828 | 823 | 819 | 814 | 810 | 805 | 801 | 797 | 793 | 788 | 784 | 780 | 149 |
| 150 | 843 | 838 | 833 | 829 | 824 | 820 | 815 | 811 | 806 | 802 | 798 | 794 | 789 | 785 | 150 |
| 151 | 848 | 844 | 839 | 834 | 830 | 825 | 821 | 816 | 812 | 807 | 803 | 799 | 795 | 791 | 151 |
| 152 | 854 | 849 | 844 | 840 | 835 | 831 | 826 | 822 | 817 | 813 | 809 | 804 | 800 | 796 | 152 |
| 153 | 860 | 855 | 850 | 845 | 841 | 836 | 832 | 827 | 823 | 818 | 814 | 810 | 805 | 801 | 153 |
| 154 | 865 | 860 | 856 | 851 | 846 | 842 | 837 | 832 | 828 | 824 | 819 | 815 | 811 | 806 | 154 |
| 155 | 871 | 866 | 861 | 856 | 852 | 847 | 842 | 838 | 833 | 829 | 824 | 820 | 816 | 812 | 155 |
| 156 | 876 | 872 | 867 | 862 | 857 | 852 | 848 | 843 | 839 | 834 | 830 | 825 | 821 | 817 | 156 |
| 157 | 882 | 877 | 872 | 867 | 863 | 858 | 853 | 849 | 844 | 840 | 835 | 831 | 826 | 822 | 157 |
| 158 | 888 | 883 | 878 | 873 | 868 | 863 | 859 | 854 | 849 | 845 | 840 | 836 | 832 | 827 | 158 |
| 159 | 893 | 888 | 883 | 878 | 874 | 869 | 864 | 859 | 855 | 850 | 846 | 841 | 837 | 832 | 159 |
| 160 | 899 | 894 | 889 | 884 | 879 | 874 | 870 | 865 | 860 | 856 | 851 | 847 | 842 | 838 | 160 |
| 161 | 904 | 899 | 894 | 890 | 885 | 880 | 875 | 870 | 866 | 861 | 856 | 852 | 847 | 843 | 161 |
| 162 | 910 | 905 | 900 | 895 | 890 | 885 | 880 | 876 | 871 | 866 | 862 | 857 | 853 | 848 | 162 |
| 163 | 916 | 911 | 906 | 901 | 896 | 891 | 886 | 881 | 876 | 872 | 867 | 862 | 858 | 853 | 163 |
| 164 | 921 | 916 | 911 | 906 | 901 | 896 | 891 | 886 | 882 | 877 | 872 | 868 | 863 | 859 | 164 |
| 165 | 927 | 922 | 917 | 912 | 907 | 902 | 897 | 892 | 887 | 882 | 878 | 873 | 868 | 864 | 165 |
| | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | |

## CALCULATING INDICES.

(*continued*).

| | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **115** | 599 | 596 | 593 | 590 | 587 | 584 | 581 | 578 | 575 | 572 | 569 | 567 | 564 | 561 | **115** |
| **116** | 604 | 601 | 598 | 595 | 592 | 589 | 586 | 583 | 580 | 577 | 574 | 571 | 569 | 566 | **116** |
| **117** | 609 | 606 | 603 | 600 | 597 | 594 | 591 | 588 | 585 | 582 | 579 | 576 | 574 | 571 | **117** |
| **118** | 615 | 611 | 608 | 605 | 602 | 599 | 596 | 593 | 590 | 587 | 584 | 581 | 578 | 576 | **118** |
| **119** | 620 | 617 | 613 | 610 | 607 | 604 | 601 | 598 | 595 | 592 | 589 | 586 | 583 | 580 | **119** |
| **120** | 625 | 622 | 619 | 615 | 612 | 609 | 606 | 603 | 600 | 597 | 594 | 591 | 588 | 585 | **120** |
| **121** | 630 | 627 | 624 | 621 | 617 | 614 | 611 | 608 | 605 | 602 | 599 | 596 | 593 | 590 | **121** |
| **122** | 635 | 632 | 629 | 626 | 622 | 619 | 616 | 613 | 610 | 607 | 604 | 601 | 598 | 595 | **122** |
| **123** | 641 | 637 | 634 | 631 | 628 | 624 | 621 | 618 | 615 | 612 | 609 | 606 | 603 | 600 | **123** |
| **124** | 646 | 642 | 639 | 636 | 633 | 629 | 626 | 623 | 620 | 617 | 614 | 611 | 608 | 605 | **124** |
| **125** | 651 | 648 | 644 | 641 | 638 | 635 | 631 | 628 | 625 | 622 | 619 | 616 | 613 | 610 | **125** |
| **126** | 656 | 653 | 649 | 646 | 643 | 640 | 636 | 633 | 630 | 627 | 624 | 621 | 618 | 615 | **126** |
| **127** | 661 | 658 | 655 | 651 | 648 | 645 | 641 | 638 | 635 | 632 | 629 | 626 | 623 | 620 | **127** |
| **128** | 667 | 663 | 660 | 656 | 653 | 650 | 646 | 643 | 640 | 637 | 634 | 631 | 627 | 624 | **128** |
| **129** | 672 | 668 | 665 | 662 | 658 | 655 | 652 | 648 | 645 | 642 | 639 | 635 | 632 | 629 | **129** |
| **130** | 677 | 674 | 670 | 667 | 663 | 660 | 657 | 653 | 650 | 647 | 644 | 640 | 637 | 634 | **130** |
| **131** | 682 | 679 | 675 | 672 | 668 | 665 | 662 | 658 | 655 | 652 | 649 | 645 | 642 | 639 | **131** |
| **132** | 688 | 684 | 680 | 677 | 673 | 670 | 667 | 663 | 660 | 657 | 653 | 650 | 647 | 644 | **132** |
| **133** | 693 | 689 | 686 | 682 | 679 | 675 | 672 | 668 | 665 | 662 | 658 | 655 | 652 | 649 | **133** |
| **134** | 698 | 694 | 691 | 687 | 684 | 680 | 677 | 673 | 670 | 667 | 663 | 660 | 657 | 654 | **134** |
| **135** | 703 | 699 | 696 | 692 | 689 | 685 | 682 | 678 | 675 | 672 | 668 | 665 | 662 | 659 | **135** |
| **136** | 708 | 705 | 701 | 697 | 694 | 690 | 687 | 683 | 680 | 677 | 673 | 670 | 667 | 663 | **136** |
| **137** | 714 | 710 | 706 | 703 | 699 | 695 | 692 | 688 | 685 | 682 | 678 | 675 | 672 | 668 | **137** |
| **138** | 719 | 715 | 711 | 708 | 704 | 701 | 697 | 693 | 690 | 687 | 683 | 680 | 676 | 673 | **138** |
| **139** | 724 | 720 | 716 | 713 | 709 | 706 | 702 | 698 | 695 | 692 | 688 | 685 | 681 | 678 | **139** |
| **140** | 729 | 725 | 722 | 718 | 714 | 711 | 707 | 704 | 700 | 697 | 693 | 690 | 686 | 683 | **140** |
| **141** | 734 | 731 | 727 | 723 | 719 | 716 | 712 | 709 | 705 | 701 | 698 | 695 | 691 | 688 | **141** |
| **142** | 740 | 736 | 732 | 728 | 724 | 721 | 717 | 714 | 710 | 706 | 703 | 700 | 696 | 693 | **142** |
| **143** | 745 | 741 | 737 | 733 | 730 | 726 | 722 | 719 | 715 | 711 | 708 | 704 | 701 | 698 | **143** |
| **144** | 750 | 746 | 742 | 738 | 735 | 731 | 727 | 724 | 720 | 716 | 713 | 709 | 706 | 702 | **144** |
| **145** | 755 | 751 | 747 | 744 | 740 | 736 | 732 | 729 | 725 | 721 | 718 | 714 | 711 | 707 | **145** |
| **146** | 760 | 756 | 753 | 749 | 745 | 741 | 737 | 734 | 730 | 726 | 723 | 719 | 716 | 712 | **146** |
| **147** | 766 | 762 | 758 | 754 | 750 | 746 | 742 | 739 | 735 | 731 | 728 | 724 | 721 | 717 | **147** |
| **148** | 771 | 767 | 763 | 759 | 755 | 751 | 747 | 744 | 740 | 736 | 733 | 729 | 725 | 722 | **148** |
| **149** | 776 | 772 | 768 | 764 | 760 | 756 | 753 | 749 | 745 | 741 | 738 | 734 | 730 | 727 | **149** |
| **150** | 781 | 777 | 773 | 769 | 765 | 761 | 758 | 754 | 750 | 746 | 743 | 739 | 735 | 732 | **150** |
| **151** | 786 | 782 | 778 | 774 | 770 | 766 | 763 | 759 | 755 | 751 | 748 | 744 | 740 | 737 | **151** |
| **152** | 792 | 788 | 784 | 779 | 776 | 772 | 768 | 764 | 760 | 756 | 752 | 749 | 745 | 741 | **152** |
| **153** | 797 | 793 | 789 | 785 | 781 | 777 | 773 | 769 | 765 | 761 | 757 | 754 | 750 | 746 | **153** |
| **154** | 802 | 798 | 794 | 790 | 786 | 782 | 778 | 774 | 770 | 766 | 762 | 759 | 755 | 751 | **154** |
| **155** | 807 | 803 | 799 | 795 | 791 | 787 | 783 | 779 | 775 | 771 | 767 | 764 | 760 | 756 | **155** |
| **156** | 813 | 808 | 804 | 800 | 796 | 792 | 788 | 784 | 780 | 776 | 772 | 768 | 765 | 761 | **156** |
| **157** | 818 | 813 | 809 | 805 | 801 | 797 | 793 | 789 | 785 | 781 | 777 | 773 | 770 | 766 | **157** |
| **158** | 823 | 819 | 814 | 810 | 806 | 802 | 798 | 794 | 790 | 786 | 782 | 778 | 775 | 771 | **158** |
| **159** | 828 | 824 | 820 | 815 | 811 | 807 | 803 | 799 | 795 | 791 | 787 | 783 | 779 | 776 | **159** |
| **160** | 833 | 829 | 825 | 821 | 816 | 812 | 808 | 804 | 800 | 796 | 792 | 788 | 784 | 780 | **160** |
| **161** | 839 | 834 | 830 | 826 | 821 | 817 | 813 | 809 | 805 | 801 | 797 | 793 | 789 | 785 | **161** |
| **162** | 844 | 839 | 835 | 831 | 827 | 822 | 818 | 814 | 810 | 806 | 802 | 798 | 794 | 790 | **162** |
| **163** | 849 | 845 | 840 | 836 | 832 | 827 | 823 | 819 | 815 | 811 | 807 | 803 | 799 | 795 | **163** |
| **164** | 854 | 850 | 845 | 841 | 837 | 832 | 828 | 824 | 820 | 816 | 812 | 808 | 804 | 800 | **164** |
| **165** | 859 | 855 | 851 | 846 | 842 | 838 | 833 | 829 | 825 | 821 | 817 | 813 | 809 | 805 | **165** |
| | **192** | **193** | **194** | **195** | **196** | **197** | **198** | **199** | **200** | **201** | **202** | **203** | **204** | **205** | |

TABLE II.—For calculating Nasal

| | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | 545 | 529 | 514 | 500 | 486 | 474 | 462 | 450 | 439 | 429 | 419 | 409 | 400 | 391 |
| 19 | 576 | 559 | 543 | 528 | 514 | 500 | 487 | 475 | 463 | 452 | 442 | 432 | 422 | 413 |
| 20 | 606 | 588 | 571 | 556 | 540 | 526 | 513 | 500 | 488 | 476 | 465 | 455 | 444 | 435 |
| 21 | 636 | 618 | 600 | 583 | 568 | 553 | 538 | 525 | 512 | 500 | 488 | 477 | 467 | 457 |
| 22 | 667 | 647 | 629 | 611 | 595 | 578 | 564 | 550 | 537 | 524 | 512 | 500 | 489 | 478 |
| 23 | 697 | 676 | 654 | 639 | 622 | 605 | 590 | 575 | 561 | 548 | 535 | 523 | 511 | 500 |
| 24 | 727 | 706 | 686 | 667 | 649 | 632 | 615 | 600 | 585 | 571 | 558 | 545 | 533 | 522 |
| 25 | 758 | 735 | 714 | 694 | 676 | 658 | 641 | 625 | 610 | 595 | 581 | 568 | 555 | 543 |
| 26 | 788 | 765 | 743 | 722 | 702 | 684 | 666 | 650 | 634 | 619 | 605 | 591 | 578 | 565 |
| 27 | 818 | 794 | 771 | 750 | 730 | 710 | 692 | 675 | 659 | 643 | 628 | 614 | 600 | 587 |
| 28 | 848 | 824 | 800 | 780 | 757 | 737 | 718 | 700 | 683 | 667 | 651 | 636 | 622 | 609 |
| 29 | 879 | 853 | 829 | 806 | 784 | 763 | 744 | 725 | 707 | 690 | 674 | 659 | 644 | 630 |
| 30 | 909 | 882 | 857 | 833 | 811 | 789 | 769 | 750 | 732 | 714 | 698 | 682 | 667 | 652 |
| 31 | 939 | 912 | 886 | 861 | 838 | 816 | 795 | 775 | 756 | 738 | 721 | 705 | 689 | 674 |
| 32 | 970 | 941 | 914 | 889 | 865 | 842 | 820 | 800 | 780 | 762 | 744 | 727 | 711 | 696 |
| 33 | 1000 | 971 | 943 | 917 | 892 | 868 | 846 | 825 | 805 | 786 | 767 | 750 | 733 | 717 |
| 34 | 1030 | 1000 | 971 | 944 | 919 | 895 | 872 | 850 | 829 | 810 | 791 | 773 | 756 | 739 |
| 35 | 1061 | 1029 | 1000 | 972 | 946 | 921 | 897 | 875 | 854 | 833 | 814 | 795 | 778 | 761 |
| 36 | 1091 | 1059 | 1029 | 1000 | 973 | 947 | 923 | 900 | 878 | 857 | 837 | 818 | 800 | 783 |
| 37 | 1121 | 1088 | 1057 | 1028 | 1000 | 974 | 949 | 925 | 902 | 881 | 860 | 840 | 822 | 804 |
| 38 | 1152 | 1118 | 1086 | 1056 | 1027 | 1000 | 974 | 950 | 927 | 905 | 884 | 864 | 844 | 826 |
| 39 | 1182 | 1147 | 1114 | 1083 | 1054 | 1026 | 1000 | 975 | 951 | 929 | 907 | 886 | 867 | 848 |
| 40 | 1212 | 1176 | 1143 | 1111 | 1081 | 1053 | 1026 | 1000 | 976 | 952 | 930 | 909 | 889 | 870 |
| | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 |

TABLE III.—For calculating

| | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 86 | 1000 | 989 | 977 | 966 | 956 | 945 | 933 | 925 | 915 | 905 | 896 | 887 | 878 | 867 |
| 87 | 1012 | 1000 | 989 | 978 | 967 | 956 | 946 | 935 | 926 | 916 | 906 | 896 | 888 | 879 |
| 88 | 1023 | 1011 | 1000 | 989 | 978 | 967 | 957 | 946 | 936 | 926 | 917 | 907 | 898 | 889 |
| 89 | 1035 | 1023 | 1011 | 1000 | 989 | 978 | 967 | 957 | 947 | 937 | 927 | 918 | 908 | 899 |
| 90 | 1047 | 1034 | 1023 | 1011 | 1000 | 989 | 978 | 968 | 957 | 947 | 938 | 928 | 918 | 909 |
| 91 | 1058 | 1046 | 1034 | 1022 | 1011 | 1000 | 989 | 978 | 968 | 958 | 948 | 938 | 929 | 919 |
| 92 | 1070 | 1057 | 1045 | 1034 | 1022 | 1011 | 1000 | 989 | 979 | 968 | 958 | 948 | 939 | 929 |
| 93 | 1081 | 1069 | 1057 | 1045 | 1033 | 1022 | 1011 | 1000 | 989 | 979 | 969 | 959 | 949 | 939 |
| 94 | 1093 | 1080 | 1068 | 1056 | 1044 | 1033 | 1022 | 1011 | 1000 | 989 | 979 | 969 | 959 | 949 |
| 95 | 1105 | 1092 | 1080 | 1067 | 1056 | 1044 | 1033 | 1022 | 1011 | 1000 | 990 | 979 | 969 | 960 |
| 96 | 1116 | 1103 | 1091 | 1079 | 1067 | 1055 | 1043 | 1032 | 1021 | 1011 | 1000 | 990 | 980 | 970 |
| 97 | 1128 | 1115 | 1102 | 1090 | 1078 | 1066 | 1054 | 1043 | 1032 | 1021 | 1010 | 1000 | 990 | 980 |
| 98 | 1140 | 1126 | 1114 | 1101 | 1089 | 1077 | 1065 | 1054 | 1043 | 1032 | 1021 | 1010 | 1000 | 990 |
| 99 | 1151 | 1138 | 1125 | 1112 | 1100 | 1088 | 1076 | 1065 | 1053 | 1042 | 1031 | 1021 | 1010 | 1000 |
| 100 | 1163 | 1149 | 1136 | 1124 | 1111 | 1099 | 1087 | 1075 | 1064 | 1053 | 1042 | 1031 | 1020 | 1010 |
| 101 | 1174 | 1161 | 1148 | 1135 | 1122 | 1110 | 1098 | 1086 | 1074 | 1063 | 1052 | 1041 | 1031 | 1020 |
| 102 | 1186 | 1172 | 1159 | 1146 | 1133 | 1121 | 1109 | 1097 | 1085 | 1074 | 1063 | 1052 | 1041 | 1030 |
| 103 | 1198 | 1184 | 1170 | 1157 | 1144 | 1132 | 1120 | 1108 | 1096 | 1084 | 1073 | 1062 | 1051 | 1040 |
| 104 | 1209 | 1195 | 1182 | 1169 | 1156 | 1143 | 1130 | 1118 | 1106 | 1095 | 1083 | 1072 | 1061 | 1051 |
| 105 | 1221 | 1207 | 1193 | 1180 | 1167 | 1154 | 1141 | 1129 | 1117 | 1105 | 1094 | 1082 | 1071 | 1061 |
| 106 | 1233 | 1218 | 1205 | 1191 | 1178 | 1165 | 1152 | 1140 | 1128 | 1116 | 1104 | 1093 | 1082 | 1071 |
| 107 | 1244 | 1230 | 1216 | 1202 | 1189 | 1176 | 1163 | 1151 | 1138 | 1126 | 1114 | 1103 | 1092 | 1081 |
| 108 | 1256 | 1241 | 1227 | 1213 | 1200 | 1187 | 1174 | 1161 | 1149 | 1137 | 1125 | 1113 | 1102 | 1091 |
| 109 | 1267 | 1253 | 1239 | 1225 | 1211 | 1198 | 1185 | 1172 | 1160 | 1147 | 1135 | 1124 | 1112 | 1101 |
| 110 | 1279 | 1264 | 1250 | 1236 | 1222 | 1209 | 1196 | 1183 | 1170 | 1158 | 1146 | 1134 | 1122 | 1111 |
| 111 | 1291 | 1276 | 1261 | 1247 | 1233 | 1220 | 1207 | 1194 | 1181 | 1168 | 1156 | 1144 | 1133 | 1121 |
| 112 | 1302 | 1287 | 1273 | 1258 | 1244 | 1231 | 1217 | 1204 | 1191 | 1179 | 1167 | 1155 | 1143 | 1131 |
| 113 | 1314 | 1299 | 1284 | 1270 | 1256 | 1242 | 1228 | 1215 | 1202 | 1189 | 1177 | 1165 | 1153 | 1141 |
| 114 | 1326 | 1310 | 1295 | 1281 | 1267 | 1253 | 1239 | 1226 | 1213 | 1200 | 1188 | 1175 | 1163 | 1152 |
| 115 | 1327 | 1322 | 1307 | 1292 | 1278 | 1264 | 1250 | 1237 | 1223 | 1211 | 1198 | 1186 | 1173 | 1162 |
| | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 |

and Orbital Indices.

| 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 383 | 375 | 367 | 360 | 353 | 346 | 340 | 333 | 327 | 321 | 315 | 310 | 305 | 300 | 18 |
| 404 | 396 | 388 | 380 | 373 | 365 | 358 | 352 | 345 | 339 | 333 | 328 | 322 | 317 | 19 |
| 426 | 417 | 408 | 400 | 392 | 386 | 377 | 370 | 364 | 357 | 351 | 345 | 339 | 333 | 20 |
| 447 | 438 | 429 | 420 | 412 | 404 | 396 | 389 | 382 | 375 | 368 | 362 | 356 | 350 | 21 |
| 468 | 458 | 449 | 440 | 431 | 423 | 415 | 407 | 400 | 393 | 386 | 379 | 373 | 367 | 22 |
| 489 | 479 | 469 | 460 | 451 | 442 | 434 | 426 | 418 | 411 | 403 | 396 | 390 | 383 | 23 |
| 511 | 500 | 490 | 480 | 471 | 460 | 453 | 444 | 436 | 428 | 421 | 414 | 407 | 400 | 24 |
| 532 | 521 | 510 | 500 | 490 | 482 | 472 | 463 | 455 | 446 | 438 | 431 | 424 | 417 | 25 |
| 553 | 542 | 531 | 520 | 510 | 500 | 491 | 481 | 473 | 464 | 456 | 448 | 441 | 433 | 26 |
| 574 | 563 | 551 | 540 | 529 | 519 | 509 | 500 | 491 | 482 | 474 | 465 | 458 | 450 | 27 |
| 596 | 583 | 571 | 560 | 549 | 535 | 528 | 518 | 509 | 500 | 491 | 483 | 475 | 467 | 28 |
| 617 | 604 | 592 | 580 | 569 | 558 | 547 | 537 | 527 | 518 | 509 | 500 | 492 | 483 | 29 |
| 638 | 625 | 612 | 600 | 588 | 577 | 566 | 556 | 545 | 536 | 526 | 517 | 508 | 500 | 30 |
| 660 | 646 | 633 | 620 | 608 | 596 | 585 | 574 | 564 | 553 | 544 | 534 | 527 | 517 | 31 |
| 681 | 667 | 651 | 640 | 627 | 615 | 604 | 591 | 582 | 571 | 561 | 552 | 544 | 533 | 32 |
| 702 | 688 | 673 | 660 | 647 | 635 | 623 | 611 | 600 | 589 | 579 | 569 | 559 | 550 | 33 |
| 723 | 708 | 694 | 680 | 667 | 654 | 642 | 630 | 618 | 607 | 596 | 586 | 576 | 567 | 34 |
| 745 | 729 | 714 | 700 | 686 | 673 | 660 | 648 | 636 | 625 | 614 | 603 | 593 | 583 | 35 |
| 766 | 750 | 735 | 720 | 706 | 692 | 679 | 667 | 654 | 643 | 632 | 621 | 610 | 600 | 36 |
| 787 | 771 | 755 | 740 | 723 | 712 | 698 | 685 | 673 | 661 | 649 | 638 | 627 | 617 | 37 |
| 808 | 792 | 776 | 760 | 745 | 731 | 717 | 704 | 691 | 680 | 667 | 655 | 644 | 633 | 38 |
| 830 | 813 | 796 | 780 | 765 | 750 | 736 | 722 | 710 | 696 | 684 | 672 | 661 | 650 | 39 |
| 851 | 833 | 816 | 800 | 784 | 769 | 755 | 741 | 727 | 714 | 702 | 690 | 678 | 667 | 40 |
| 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | |

Alveolar Indices.

| 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 860 | 851 | 843 | 835 | 827 | 819 | 811 | 804 | 796 | 789 | 782 | 775 | 768 | 761 | 86 |
| 870 | 861 | 853 | 845 | 837 | 829 | 821 | 813 | 805 | 798 | 791 | 784 | 777 | 770 | 87 |
| 880 | 871 | 863 | 854 | 846 | 838 | 830 | 822 | 815 | 807 | 800 | 793 | 786 | 779 | 88 |
| 890 | 881 | 873 | 864 | 856 | 848 | 840 | 832 | 824 | 817 | 809 | 802 | 795 | 788 | 89 |
| 900 | 891 | 882 | 874 | 865 | 857 | 849 | 841 | 833 | 826 | 818 | 811 | 804 | 796 | 90 |
| 910 | 901 | 892 | 883 | 875 | 867 | 858 | 850 | 843 | 835 | 827 | 820 | 813 | 805 | 91 |
| 920 | 911 | 902 | 893 | 885 | 876 | 868 | 860 | 852 | 844 | 836 | 829 | 821 | 814 | 92 |
| 930 | 921 | 912 | 903 | 894 | 886 | 877 | 869 | 861 | 853 | 845 | 838 | 830 | 823 | 93 |
| 940 | 931 | 922 | 913 | 904 | 895 | 887 | 879 | 870 | 862 | 855 | 847 | 839 | 832 | 94 |
| 950 | 941 | 931 | 922 | 913 | 905 | 896 | 888 | 880 | 872 | 864 | 856 | 848 | 841 | 95 |
| 960 | 950 | 941 | 932 | 923 | 914 | 906 | 897 | 889 | 881 | 873 | 865 | 857 | 850 | 96 |
| 970 | 960 | 951 | 942 | 933 | 924 | 915 | 907 | 898 | 890 | 882 | 874 | 866 | 858 | 97 |
| 980 | 970 | 961 | 951 | 942 | 933 | 925 | 916 | 907 | 899 | 891 | 883 | 875 | 867 | 98 |
| 990 | 980 | 971 | 961 | 952 | 943 | 934 | 925 | 917 | 908 | 900 | 892 | 884 | 876 | 99 |
| 1000 | 990 | 980 | 971 | 962 | 952 | 943 | 935 | 926 | 917 | 909 | 901 | 893 | 885 | 100 |
| 1010 | 1000 | 990 | 981 | 971 | 962 | 953 | 944 | 935 | 927 | 918 | 910 | 902 | 894 | 101 |
| 1020 | 1010 | 1000 | 990 | 981 | 971 | 962 | 953 | 944 | 936 | 927 | 919 | 911 | 903 | 102 |
| 1030 | 1020 | 1010 | 1000 | 990 | 981 | 972 | 963 | 954 | 945 | 936 | 928 | 920 | 912 | 103 |
| 1040 | 1030 | 1020 | 1010 | 1000 | 990 | 981 | 972 | 963 | 954 | 945 | 937 | 929 | 920 | 104 |
| 1050 | 1040 | 1029 | 1019 | 1010 | 1000 | 991 | 981 | 972 | 963 | 955 | 946 | 938 | 929 | 105 |
| 1060 | 1050 | 1039 | 1029 | 1019 | 1010 | 1000 | 991 | 981 | 972 | 964 | 955 | 946 | 938 | 106 |
| 1070 | 1059 | 1049 | 1039 | 1029 | 1019 | 1009 | 1000 | 991 | 982 | 973 | 964 | 955 | 947 | 107 |
| 1080 | 1069 | 1059 | 1049 | 1038 | 1029 | 1019 | 1009 | 1000 | 991 | 982 | 973 | 964 | 956 | 108 |
| 1090 | 1079 | 1069 | 1058 | 1048 | 1038 | 1028 | 1019 | 1009 | 1000 | 991 | 982 | 973 | 965 | 109 |
| 1100 | 1089 | 1078 | 1068 | 1058 | 1048 | 1038 | 1028 | 1019 | 1009 | 1000 | 991 | 982 | 973 | 110 |
| 1110 | 1099 | 1088 | 1078 | 1067 | 1057 | 1047 | 1037 | 1028 | 1018 | 1009 | 1000 | 991 | 982 | 111 |
| 1120 | 1109 | 1098 | 1087 | 1077 | 1067 | 1057 | 1047 | 1037 | 1028 | 1018 | 1009 | 1000 | 991 | 112 |
| 1130 | 1119 | 1108 | 1097 | 1087 | 1076 | 1066 | 1056 | 1046 | 1037 | 1027 | 1018 | 1009 | 1000 | 113 |
| 1140 | 1129 | 1118 | 1107 | 1096 | 1086 | 1075 | 1065 | 1056 | 1046 | 1036 | 1027 | 1018 | 1009 | 114 |
| 1150 | 1139 | 1127 | 1117 | 1106 | 1095 | 1085 | 1075 | 1065 | 1055 | 1045 | 1036 | 1027 | 1018 | 115 |
| 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | |

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